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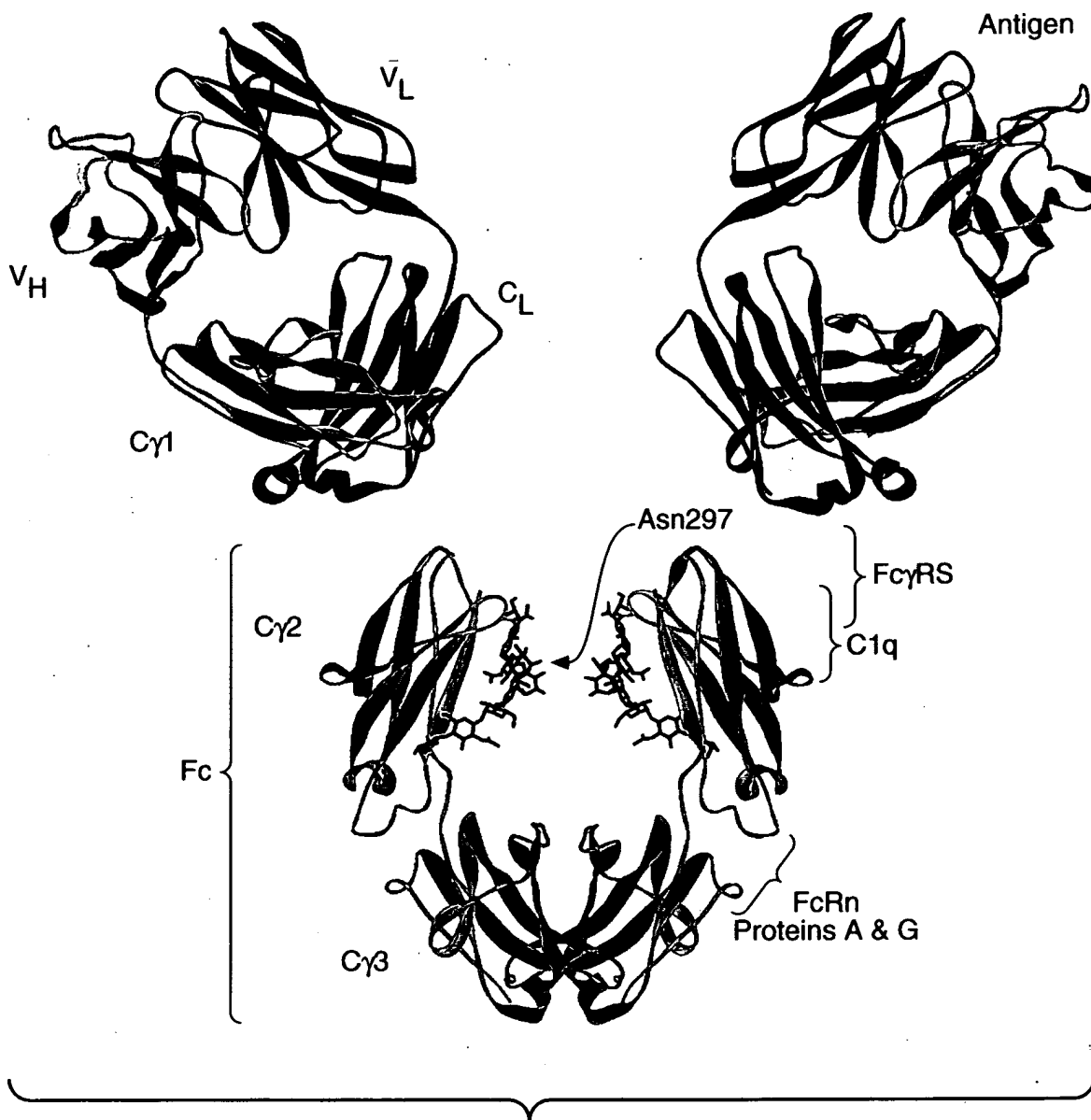


FIG. 1

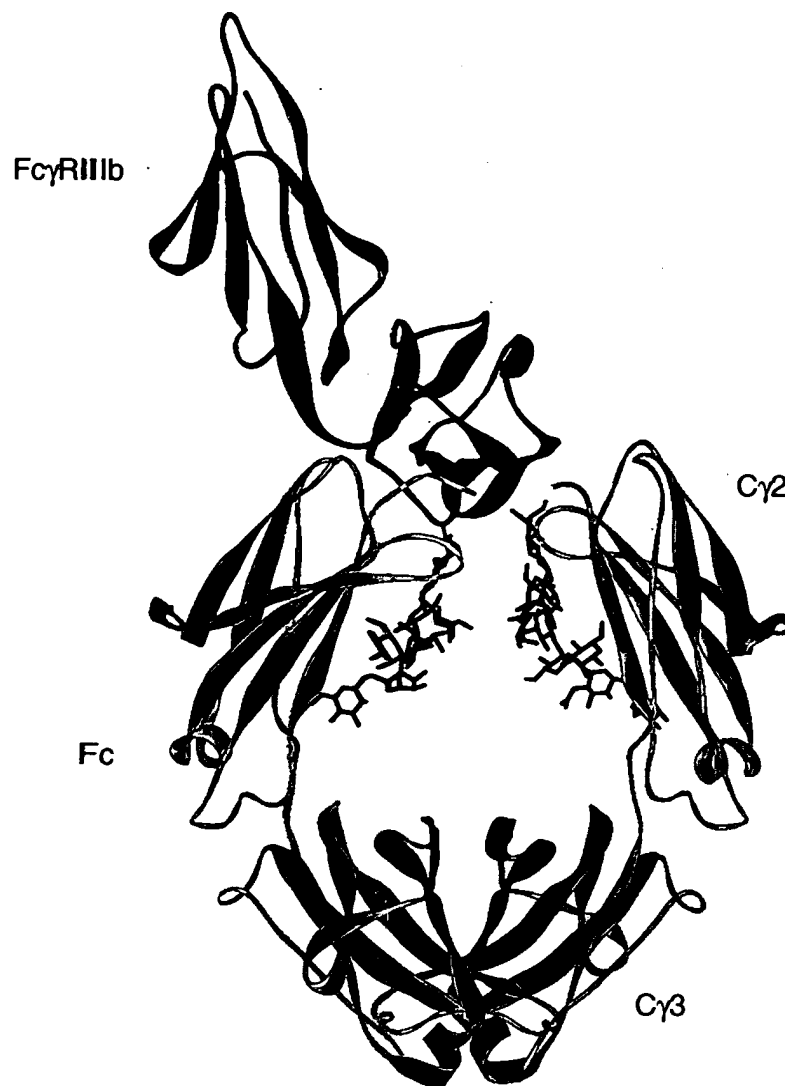


FIG._2

SEQ ID NO: 1

VH1->

1 10 20 30 40 50 60
 123456789012345678901234567890123456789012345678901234567890
 QVQLQESGPGLVLRPSQTLSTCTVSGFTFTDFYMNWVRQPPGRGLEWIGFIRDKAKGYTT

70 80 90 100 110 120
 123456789012345678901234567890123456789012345678901234567890
 EYNPSVKGRVTMLVDTSKNQFSLRLSSVTAADTAVYYCAREGHTAAPFDYWGQGSGLVTVS

Cy1->

130 140 150 160 170 180
 123456789012345678901234567890123456789012345678901234567890
 SASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQS

HINGE->

190 200 210 220 230 240
 123456789012345678901234567890123456789012345678901234567890
 SGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPELLG

1234567890123456
 KABAT 22 23

Cy2->

250 260 270 280 290 300
 123456789012345678901234567890123456789012345678901234567890
 GPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQY
 789012345678901234567890123456789012345678901234567890123456
 240 250 260 270 280 290

?Cy3?->

310 320 330 340 350 360
 123456789012345678901234567890123456789012345678901234567890
 NSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRD
 789012345678901234567890123456789012345678901234567890123456
 300 310 320 330 340 350

370 380 390 400 410 420
 123456789012345678901234567890123456789012345678901234567890
 ELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSR
 789012345678901234567890123456789012345678901234567890123456
 360 370 380 390 400 410

430 440 450
 1234567890123456789012345678901
 WQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
 7890123456789012345678901234567
 420 430 440

FIG._3

SEQ ID NO: 1

VH1->

1 10 20 30 40 50 60
 123456789012345678901234567890123456789012345678901234567890
 QVQLQESGPGLVLRPSQTLSTCTVSGFTFTDFYMNWVRQPPGRGLEWIGFIRDKAKGYTT

70 80 90 100 110 120
 123456789012345678901234567890123456789012345678901234567890
 EYNPSVKGRVTMLVDTSKNQFSLRLSSVTAADTAVYYCAREGHTAAPFDYWGQGS�TVS

Cy1->

130 140 150 160 170 180
 123456789012345678901234567890123456789012345678901234567890
 SASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQS

HINGE->

190 200 210 220 230 240
 123456789012345678901234567890123456789012345678901234567890
 SGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPELLG

1234567890123456
 KABAT 22 23

Cy2->

250 260 270 280 290 300
 123456789012345678901234567890123456789012345678901234567890
 GPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQY
 789012345678901234567890123456789012345678901234567890123456
 240 250 260 270 280 290

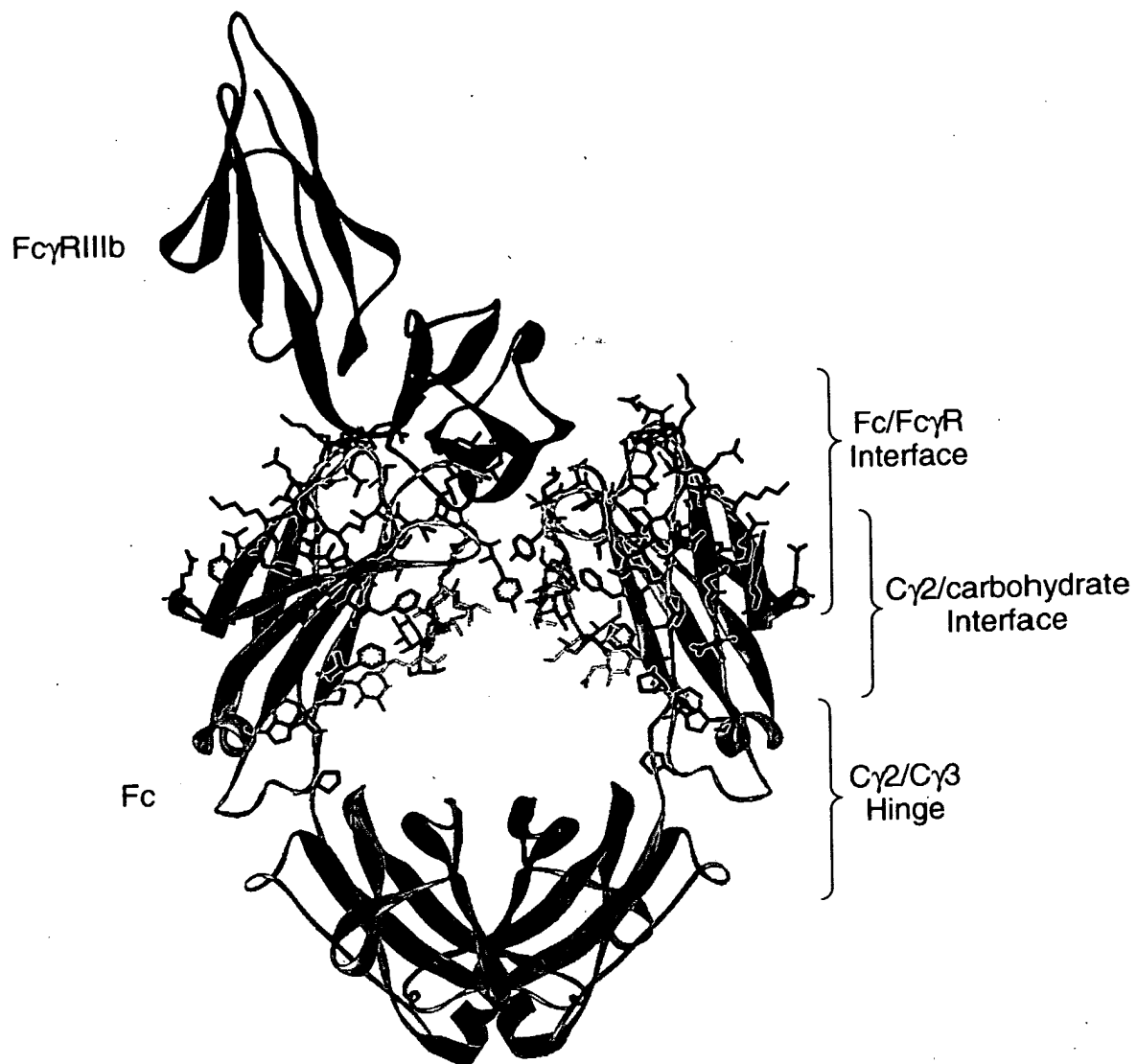
?Cy3?->

310 320 330 340 350 360
 123456789012345678901234567890123456789012345678901234567890
 NSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRD
 789012345678901234567890123456789012345678901234567890123456
 300 310 320 330 340 350

370 380 390 400 410 420
 123456789012345678901234567890123456789012345678901234567890
 ELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPVLDSGDSFFLYSKLTVDKSR
 789012345678901234567890123456789012345678901234567890123456
 360 370 380 390 400 410

430 440 450
 1234567890123456789012345678901
 WQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
 7890123456789012345678901234567
 420 430 440

FIG._3

**FIG. 4**

SEQ ID NO: 2

22 23 24 25 26 27 28
1234567890123456789012345678901234567890123456789012345678901234567890
DKTHTCPPCPPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVD

29 30 31 32 33 34
1234567890123456789012345678901234567890123456789012345678901234567890
GVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK

35 36 37 38 39 40
1234567890123456789012345678901234567890123456789012345678901234567890
GQPREPQVYITLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDS

41 42 43 44
1234567890123456789012345678901234567890123456789012345678901234567
DGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

FIG._5

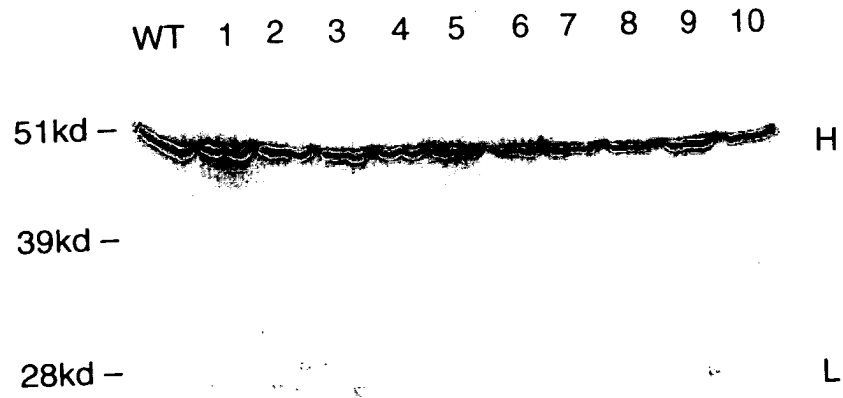


FIG._6

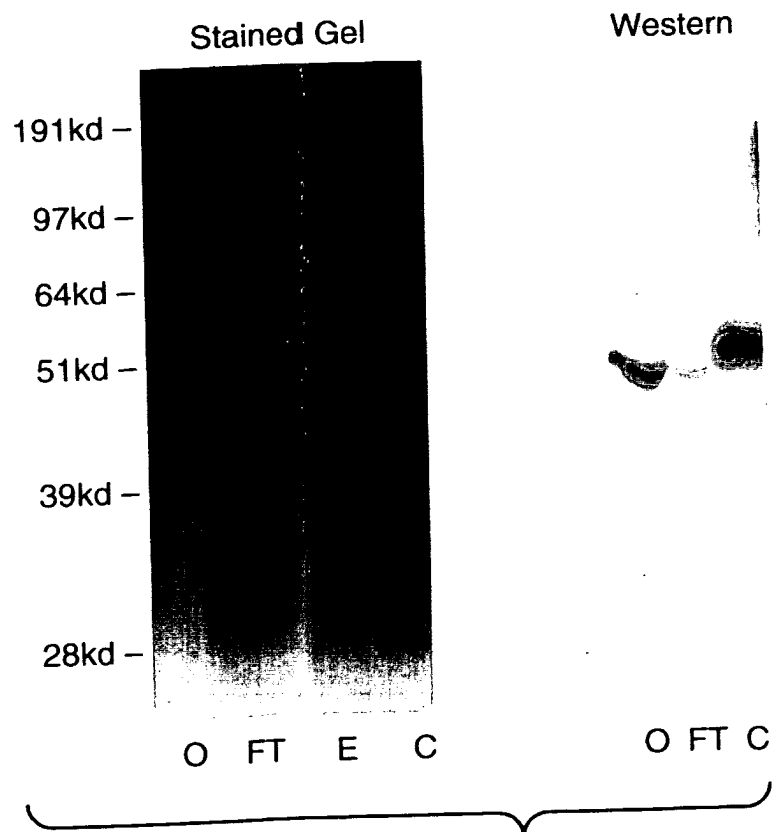
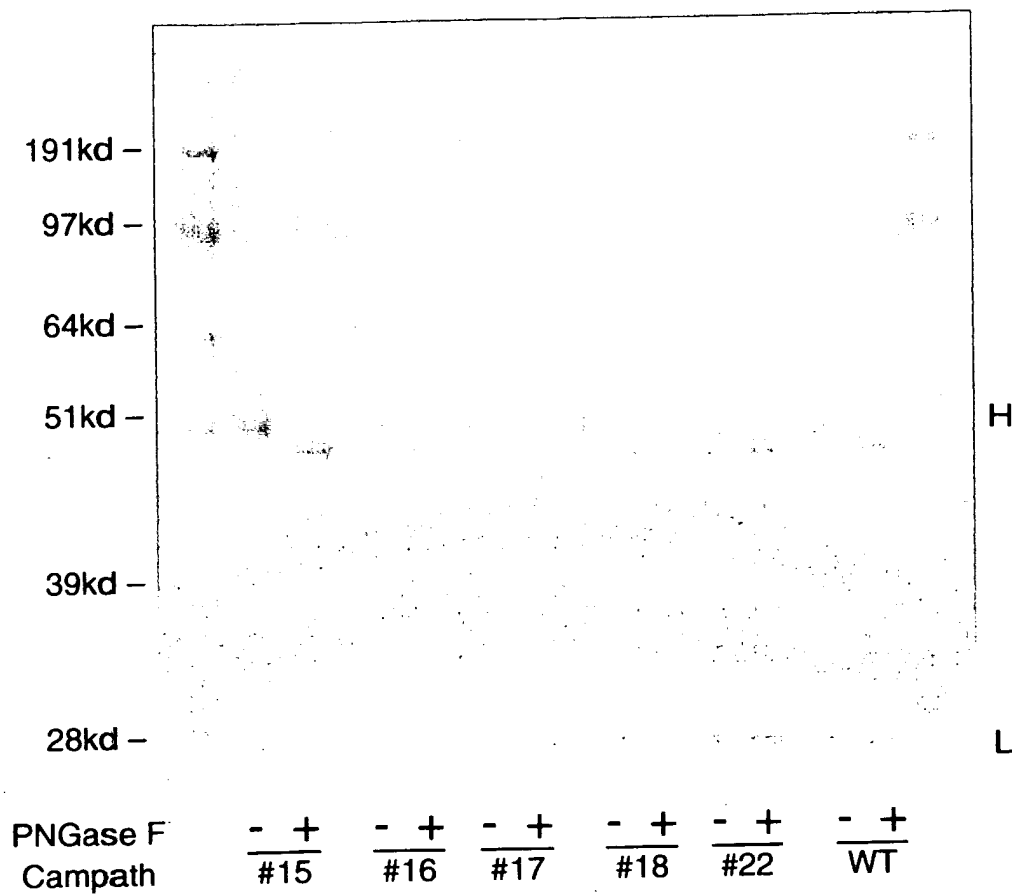
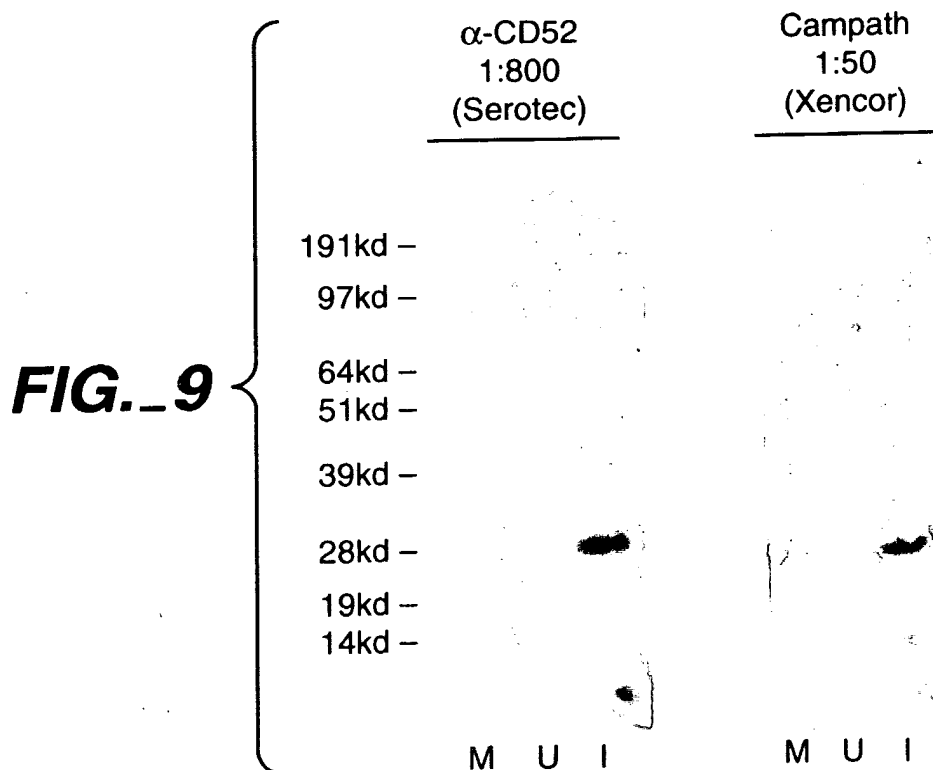
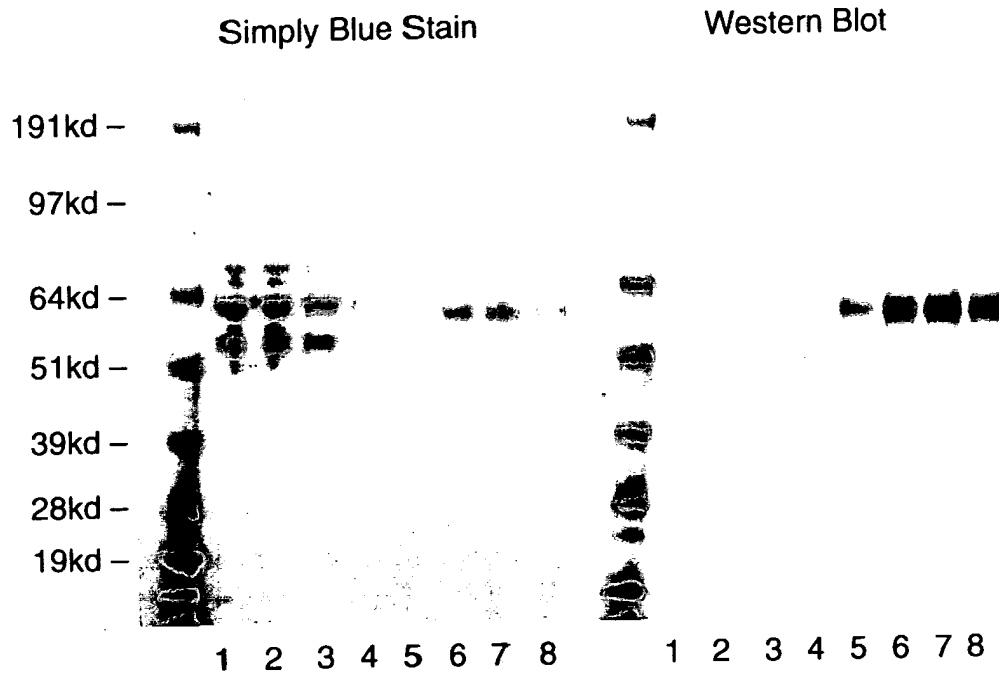
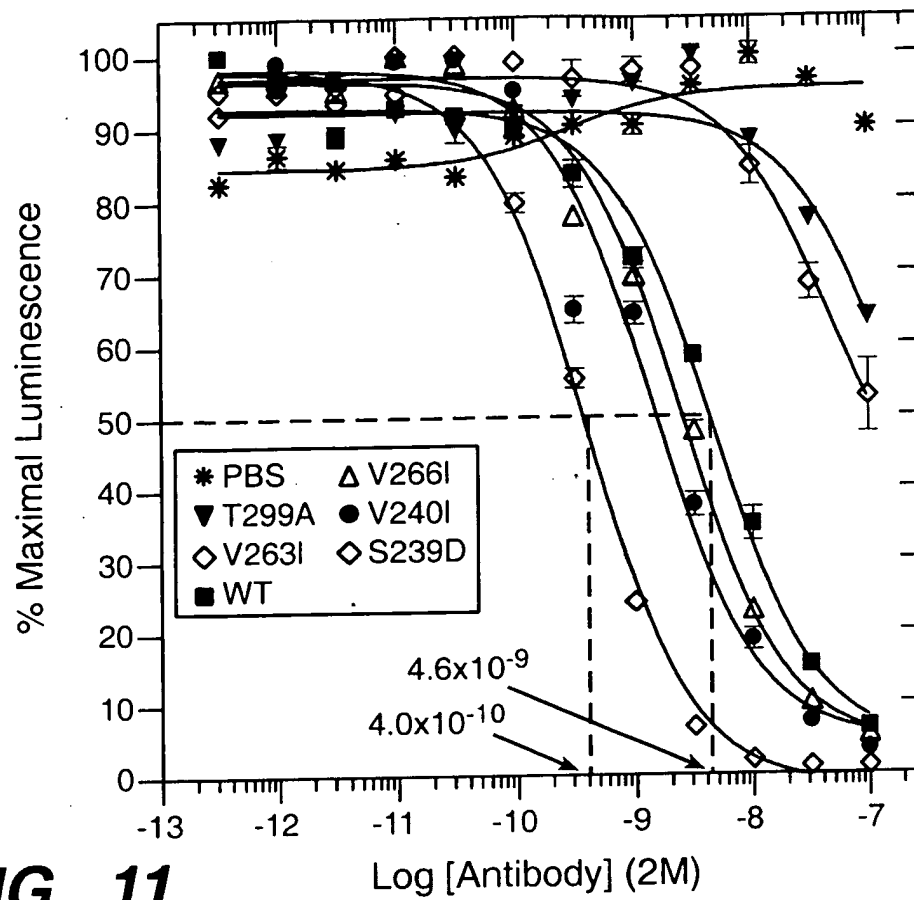
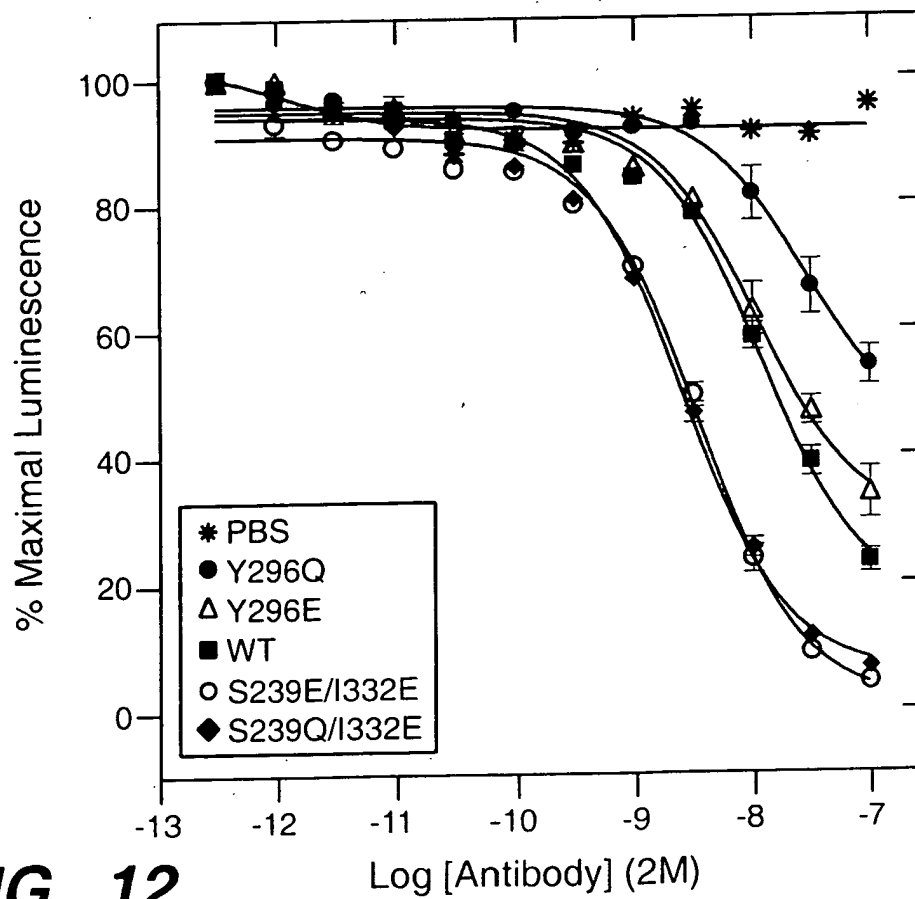
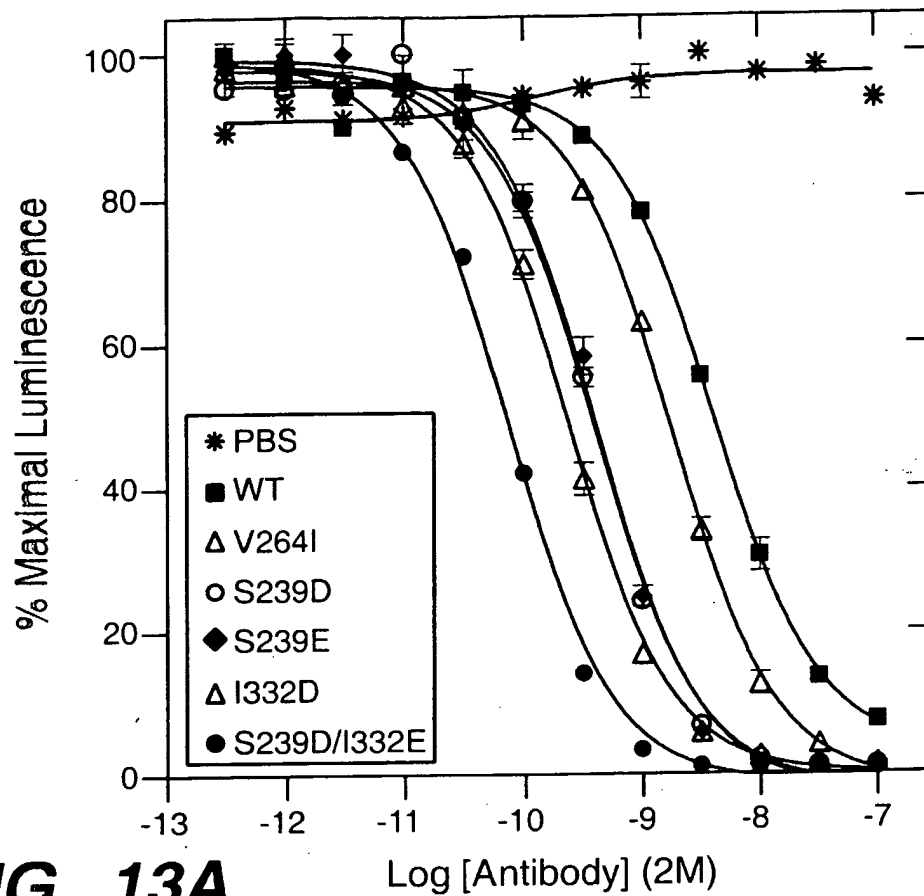
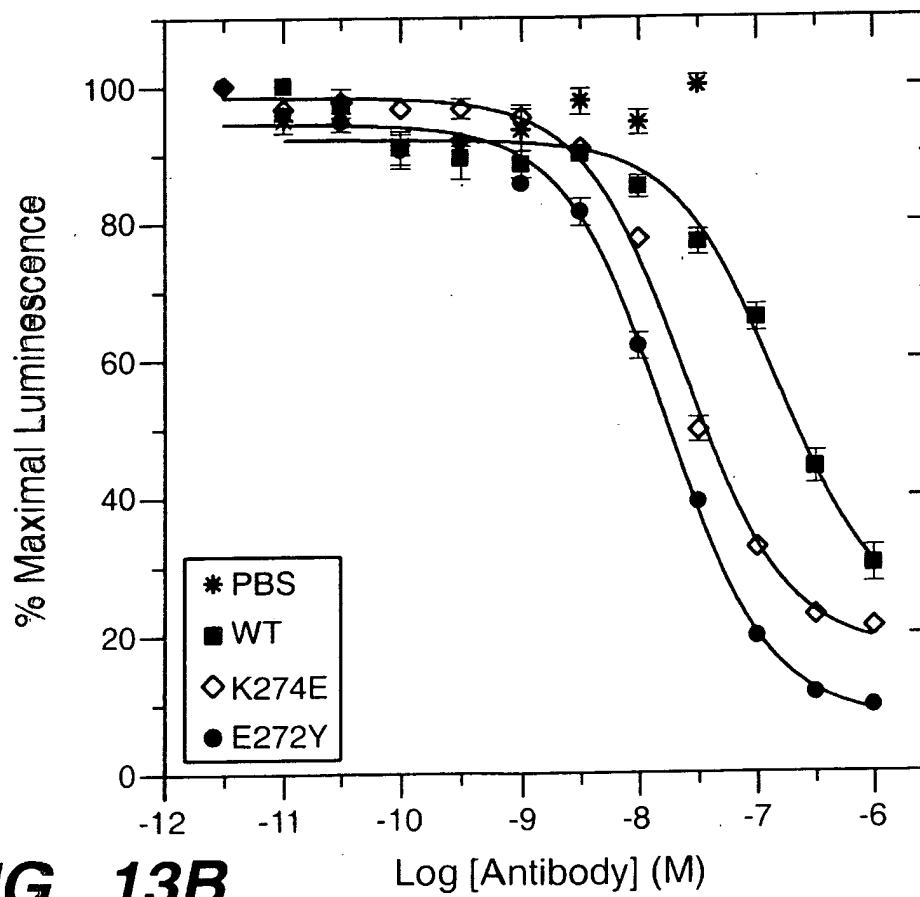


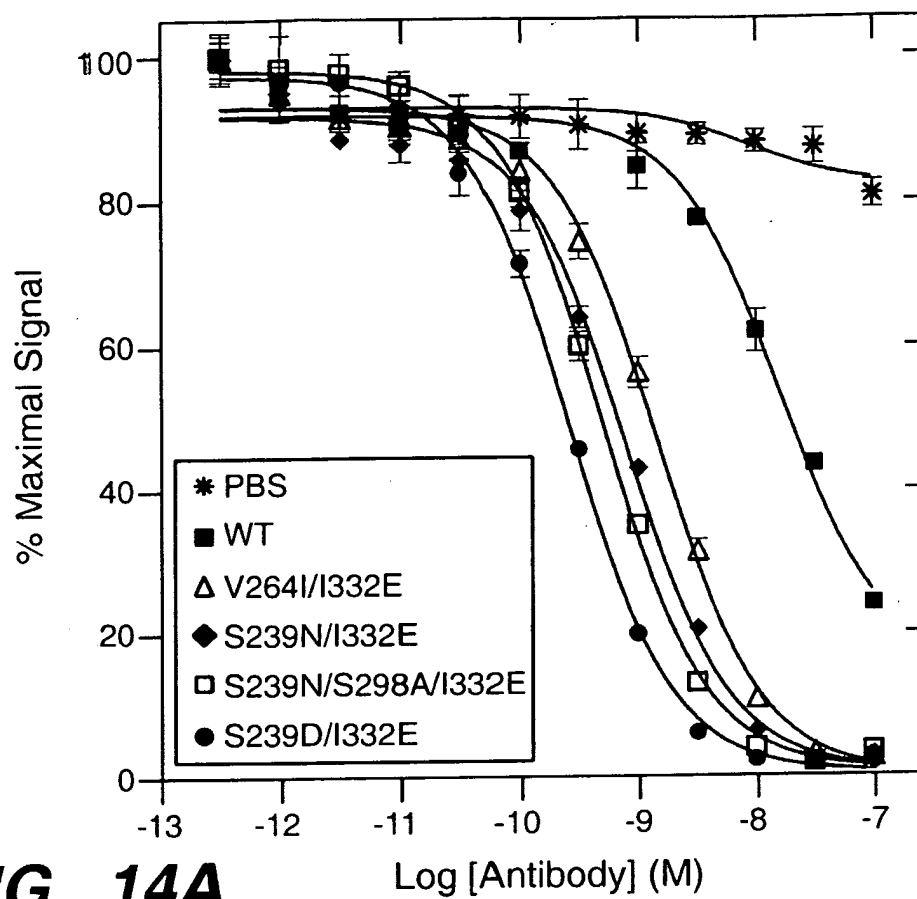
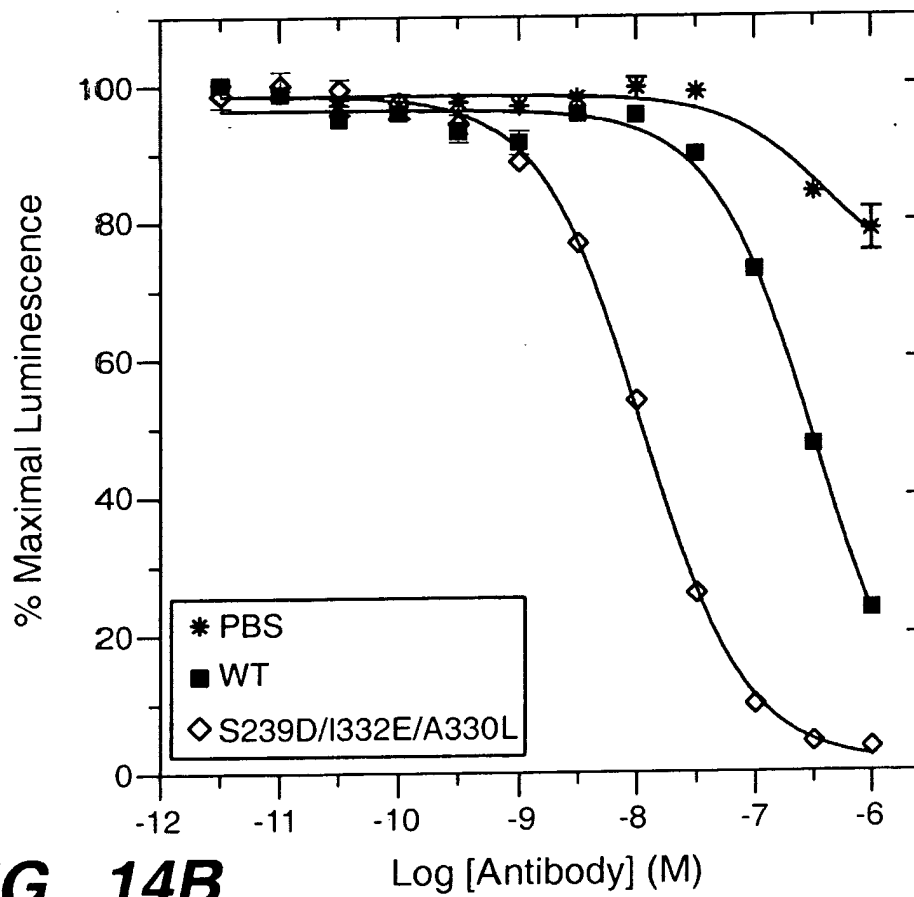
FIG._7

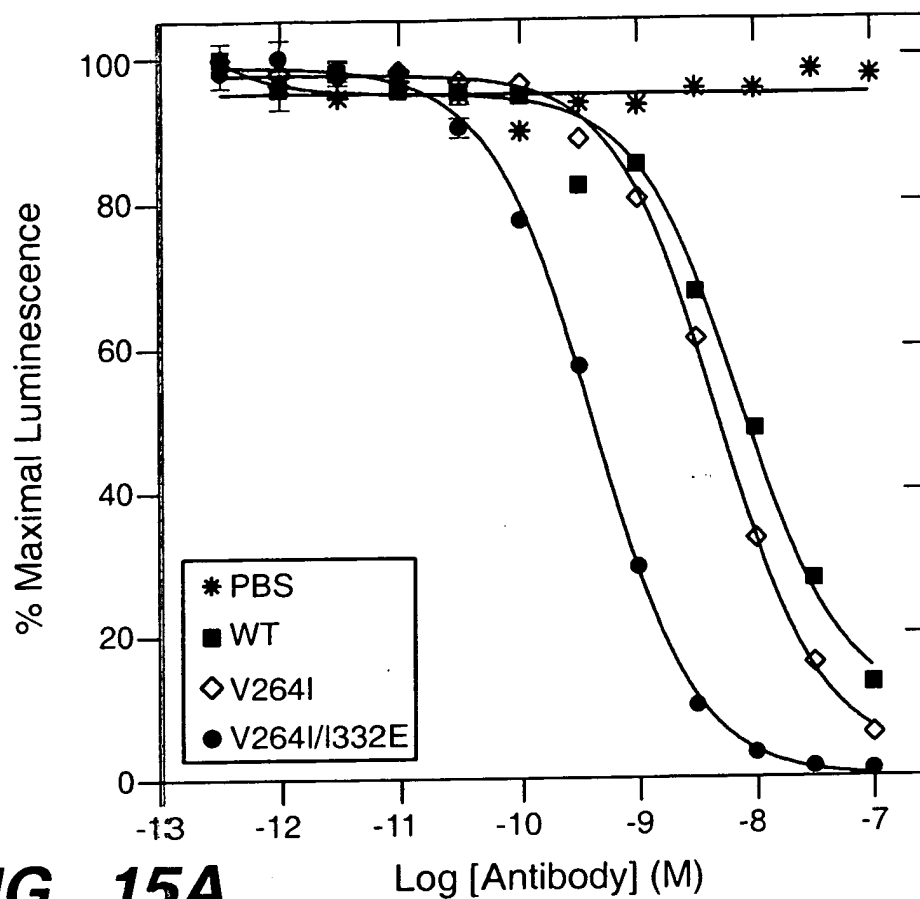
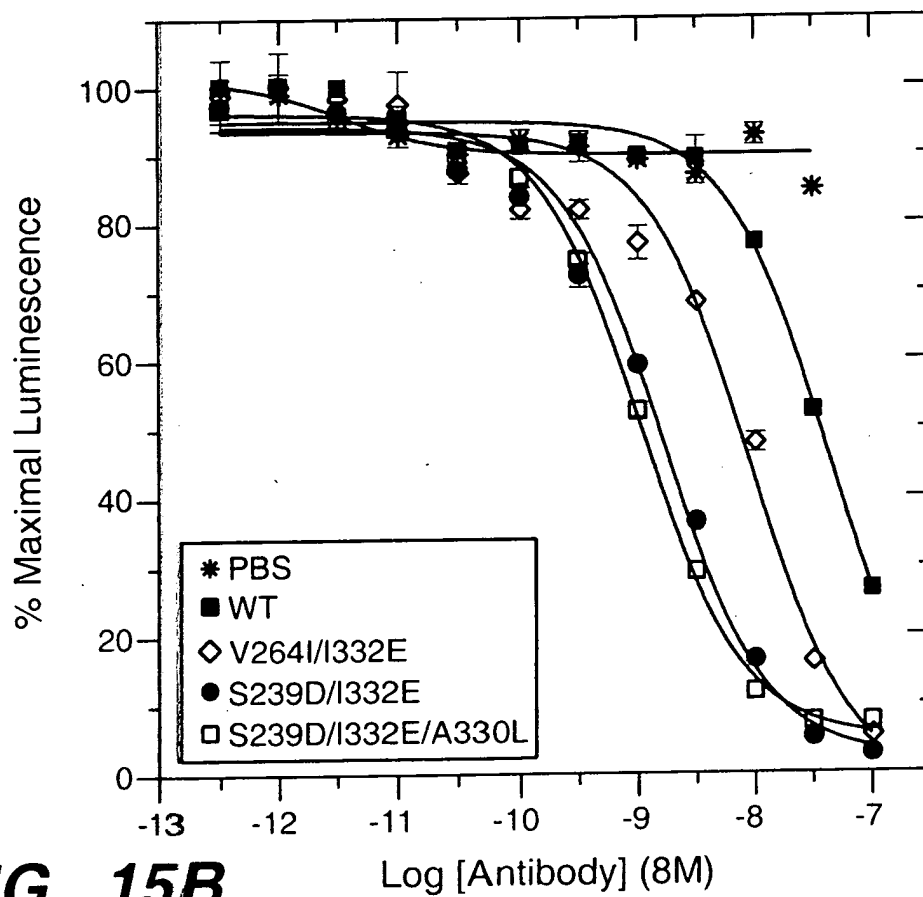
**FIG._8****FIG._9**

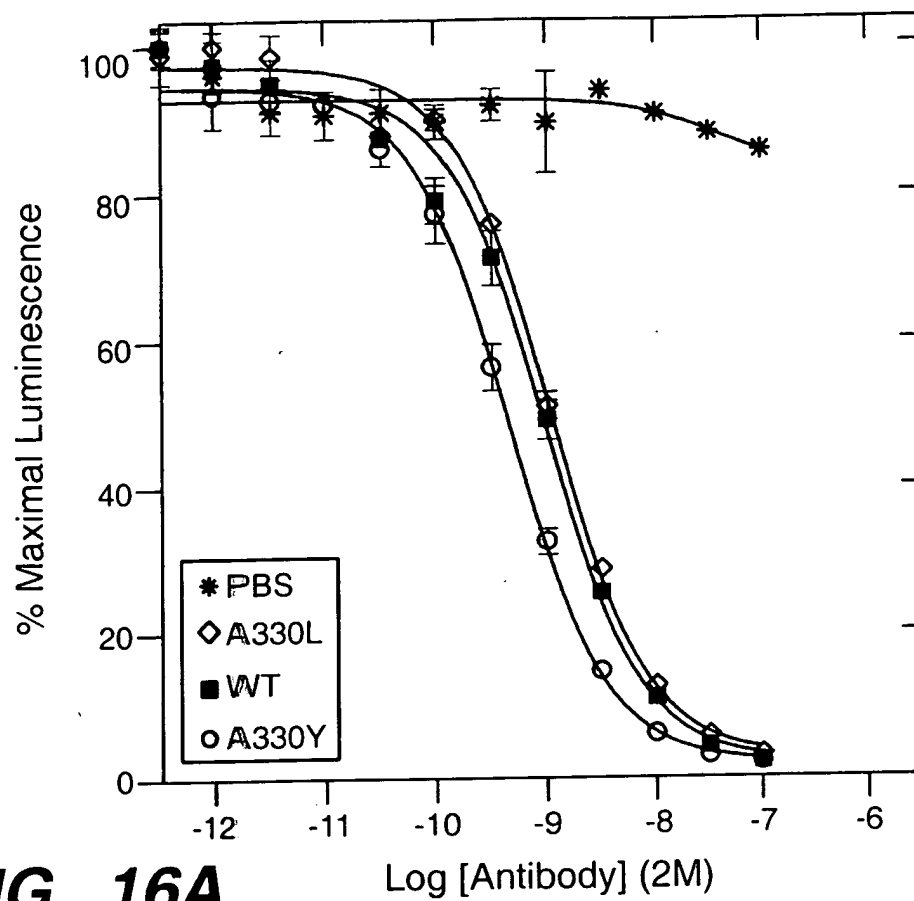
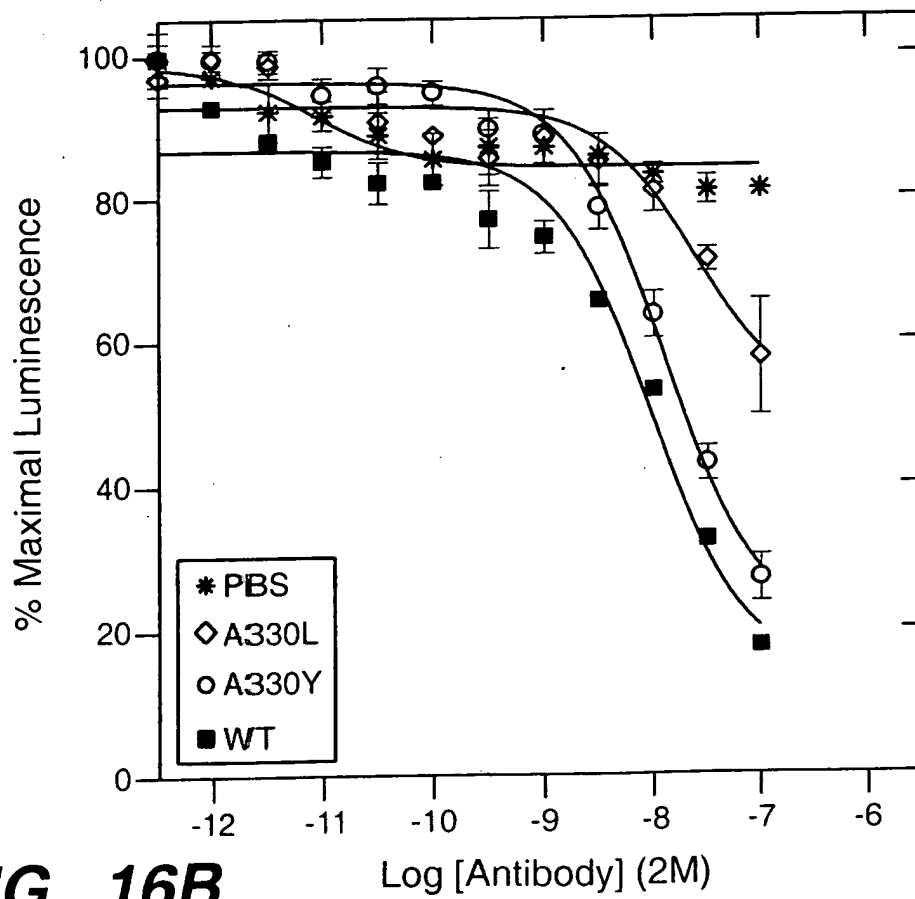
**FIG._10**

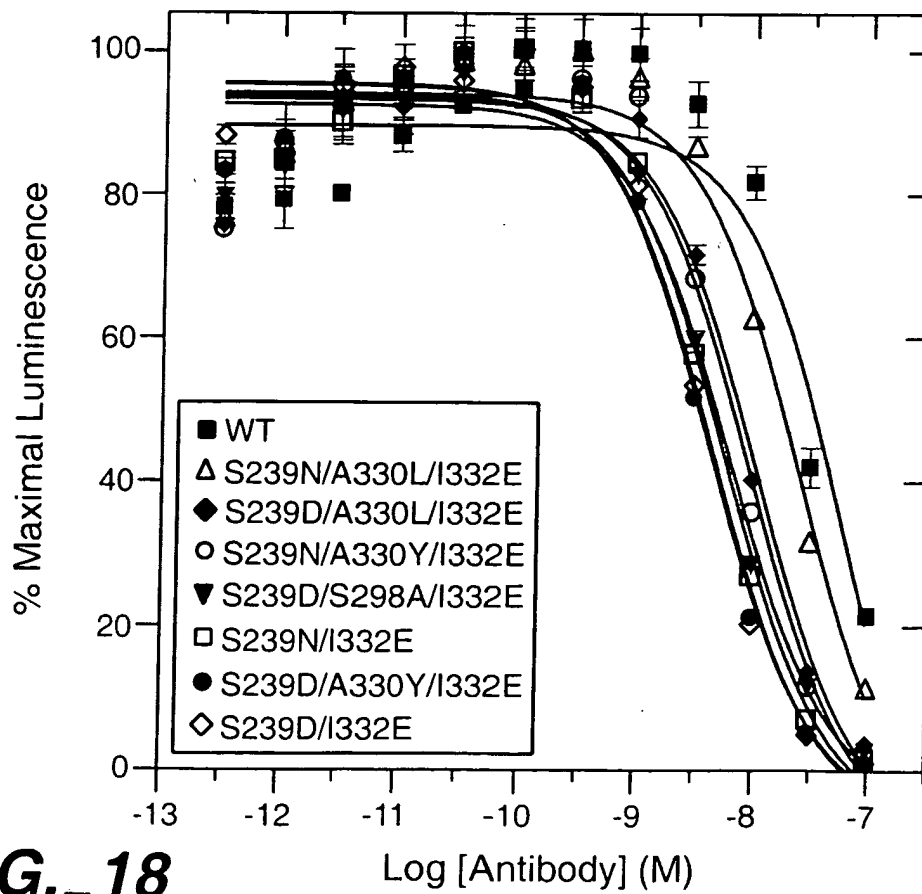
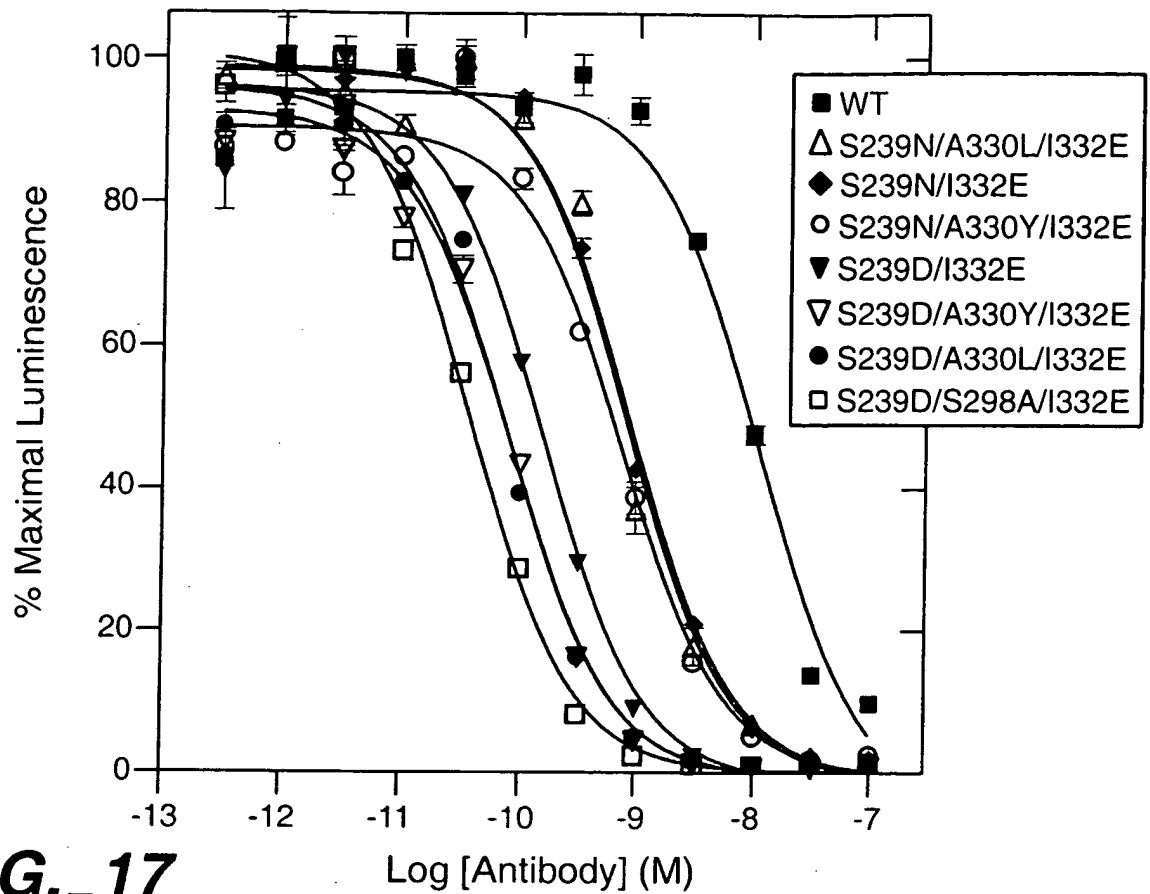
**FIG._11****FIG._12**

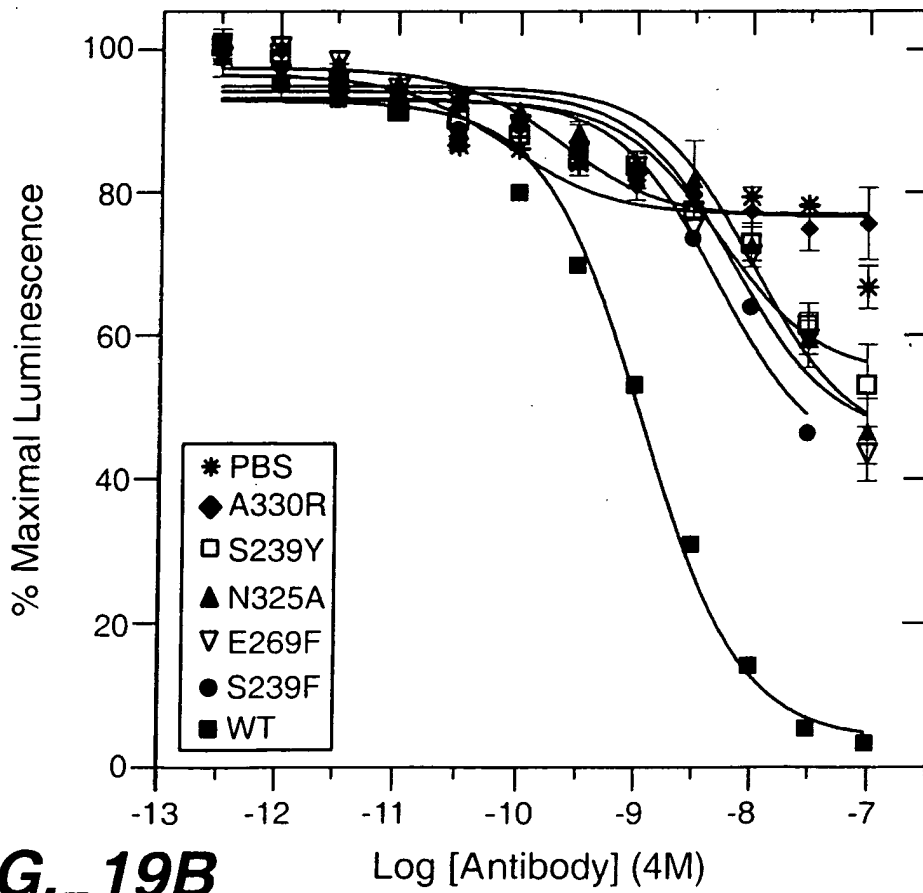
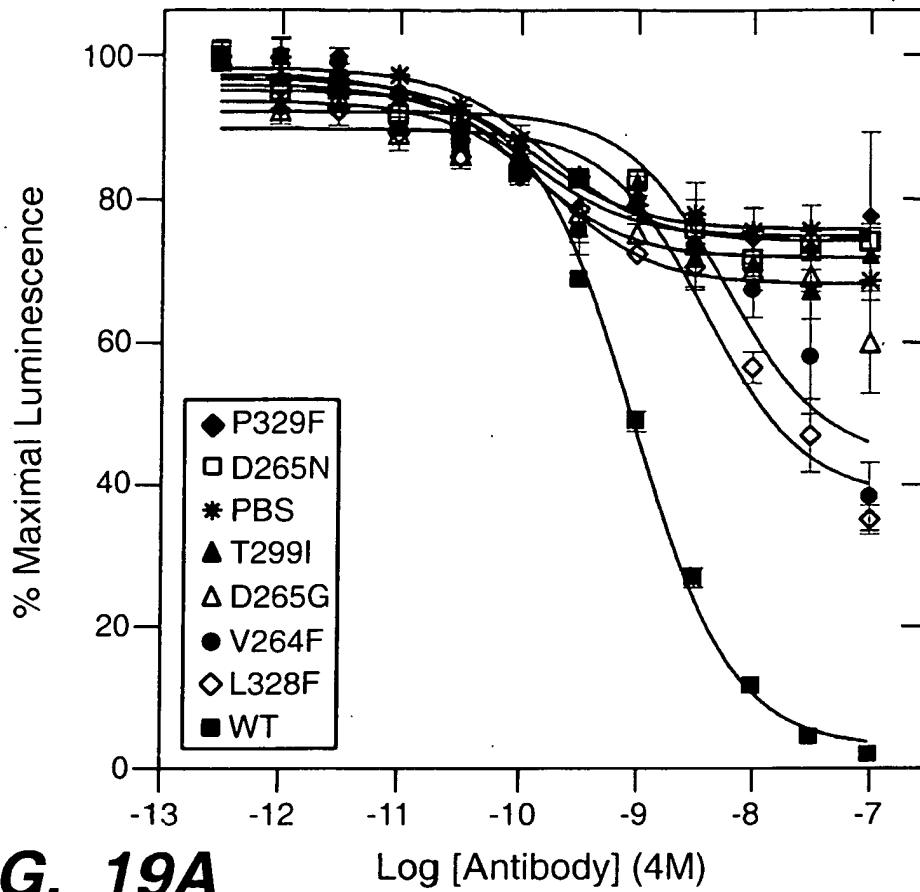
**FIG. 13A****FIG. 13B**

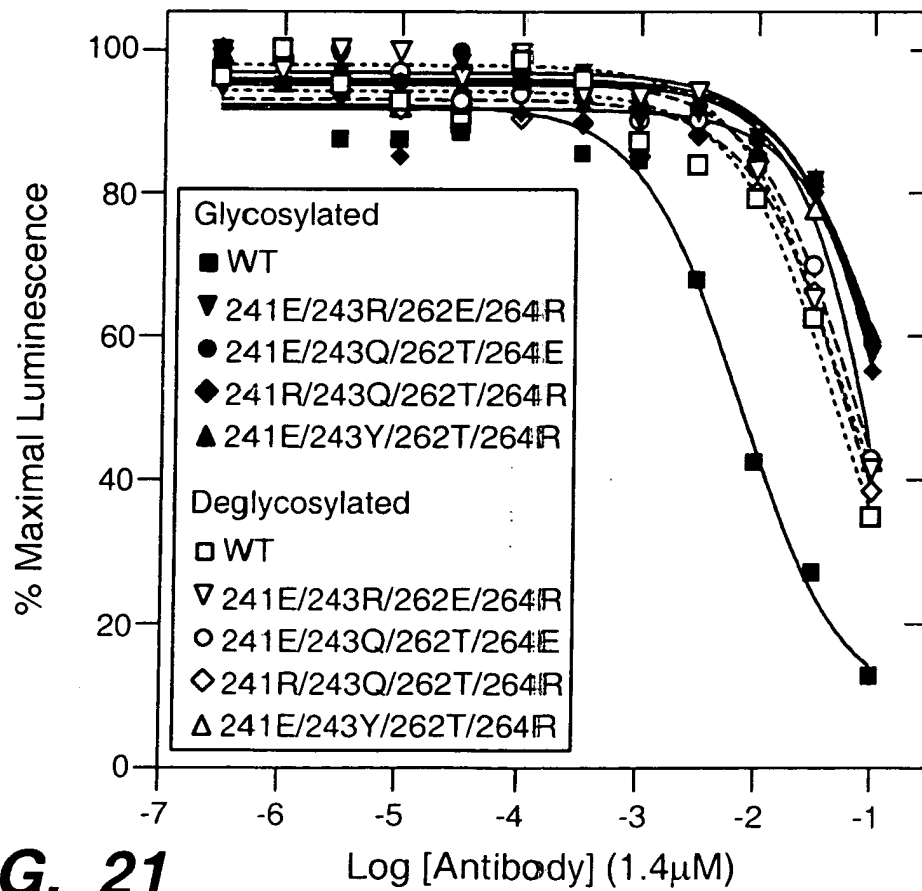
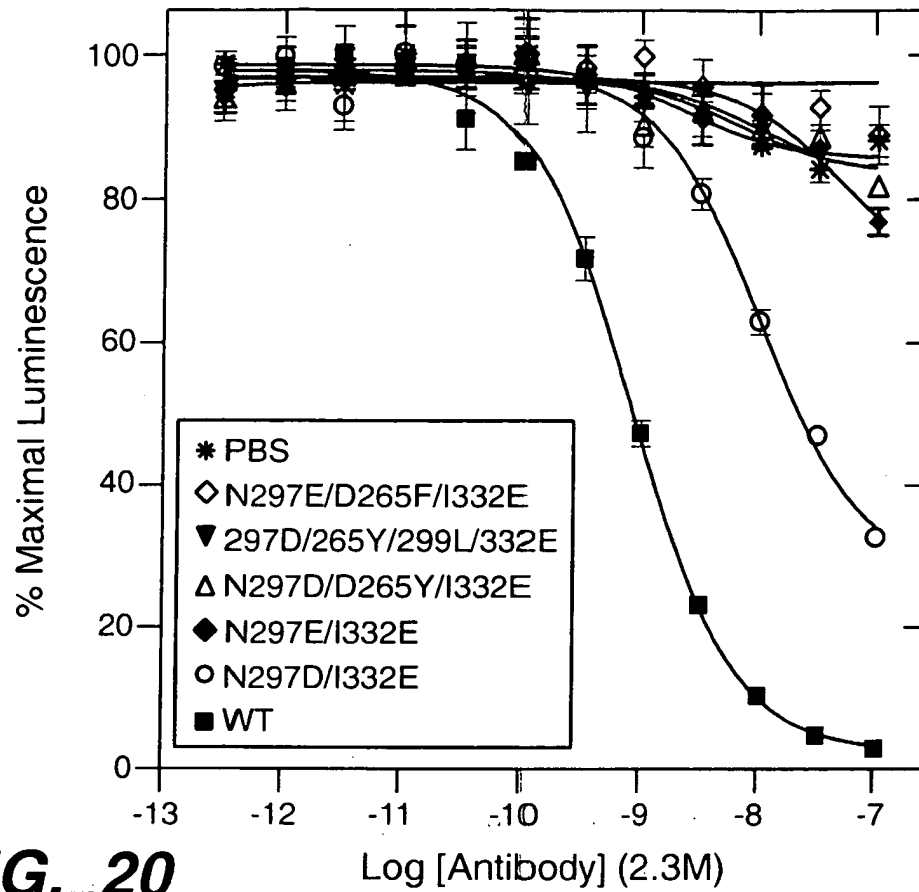
**FIG. 14A****FIG. 14B**

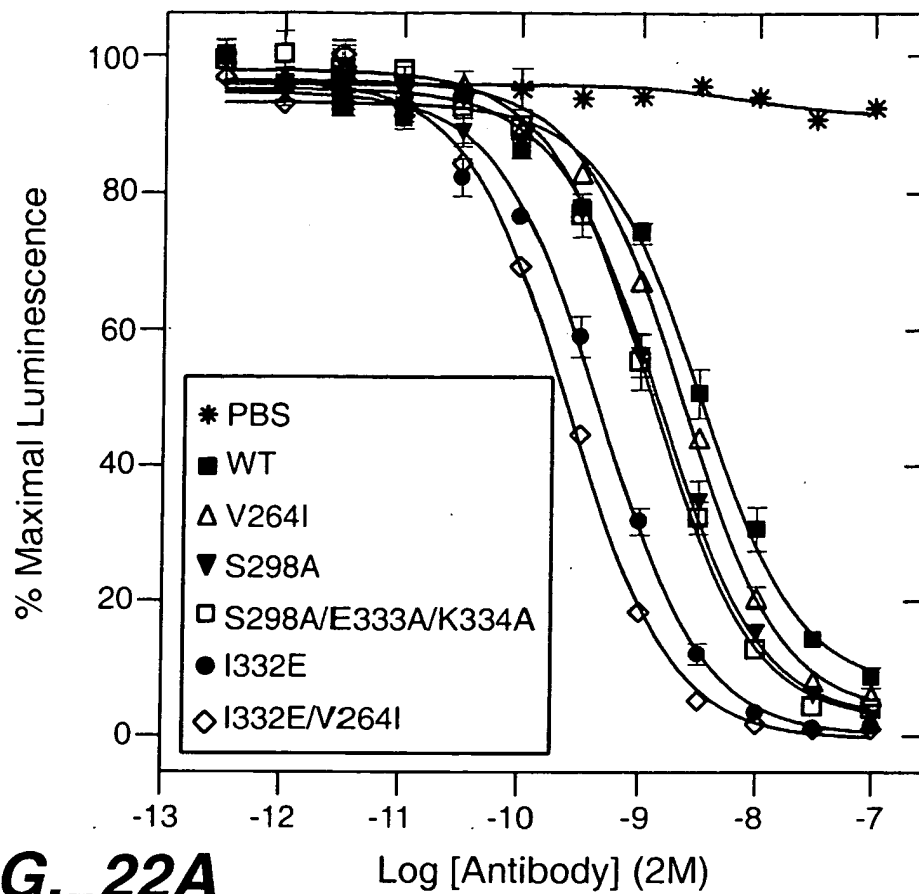
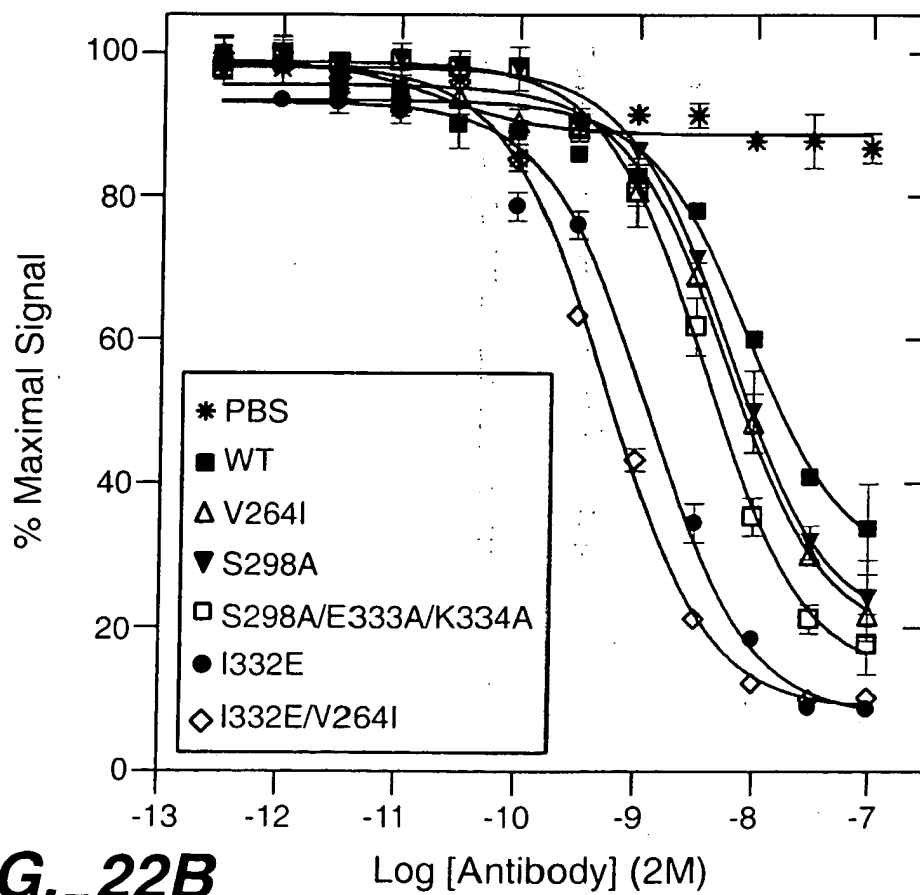
**FIG. 15A****FIG. 15B**

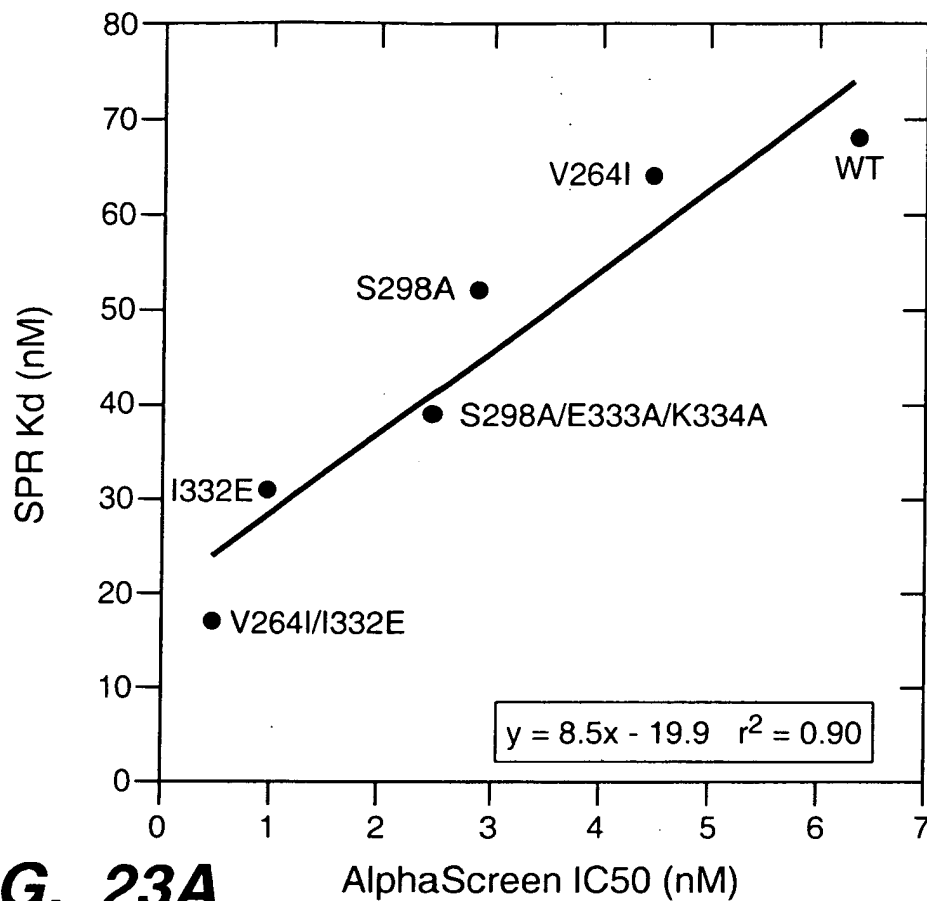
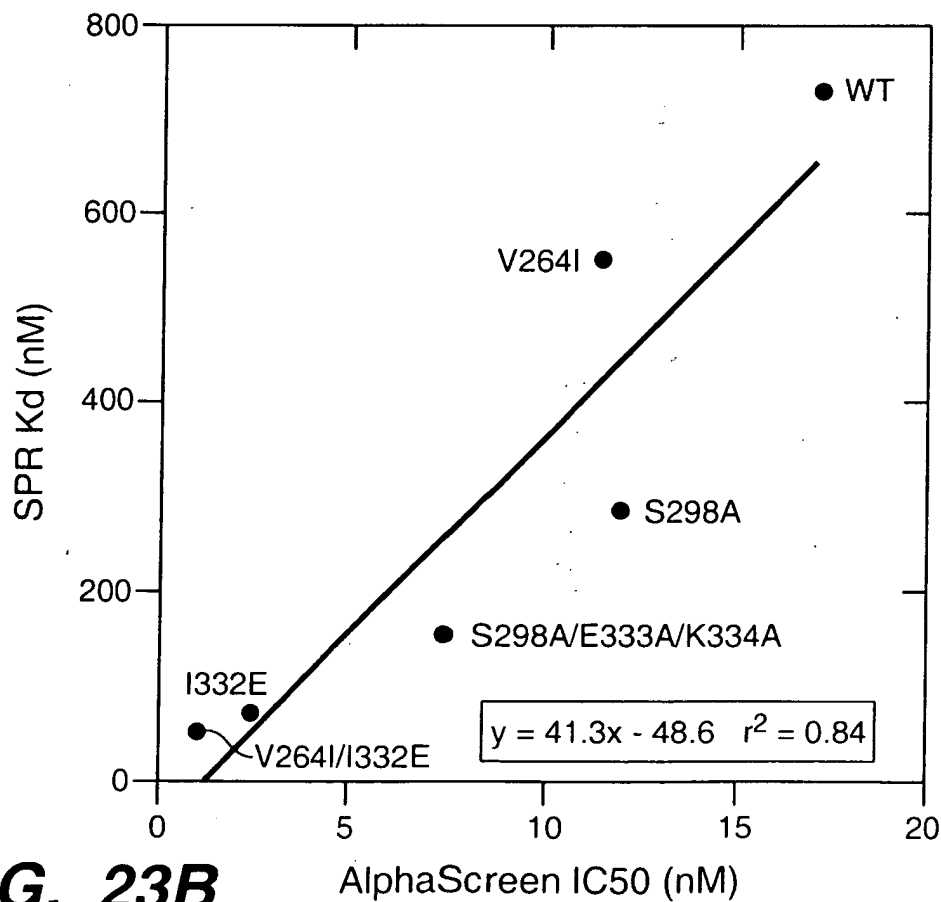
**FIG. 16A****FIG. 16B**

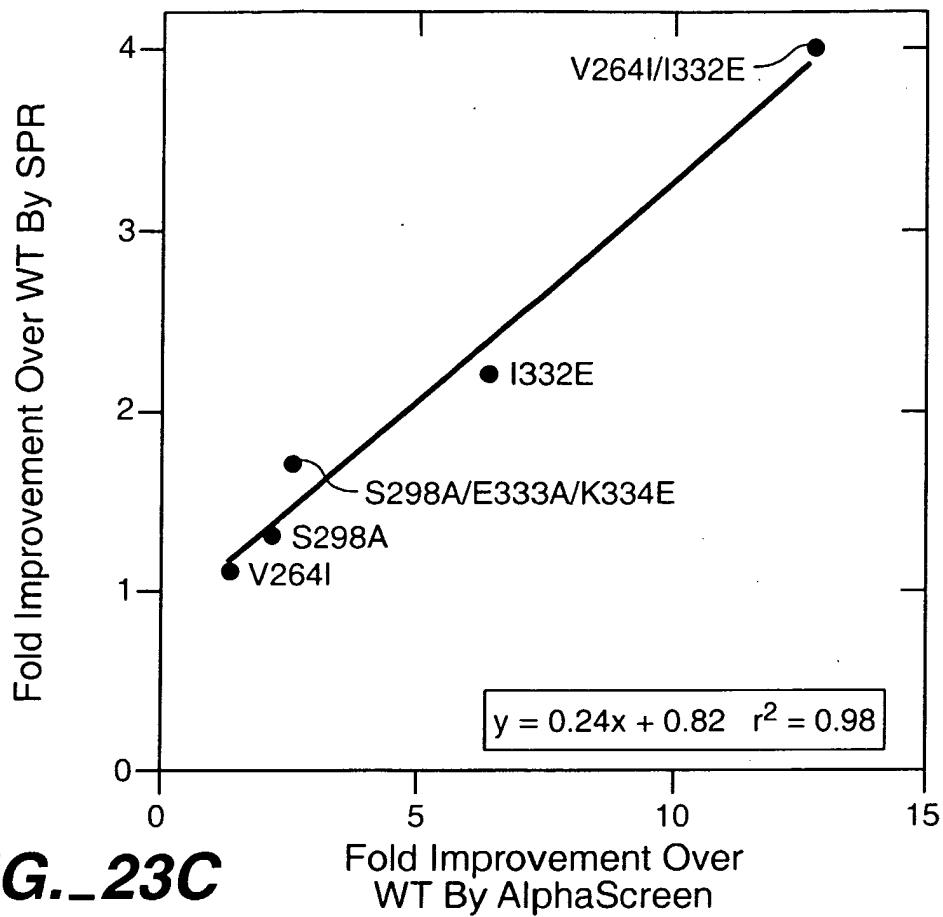
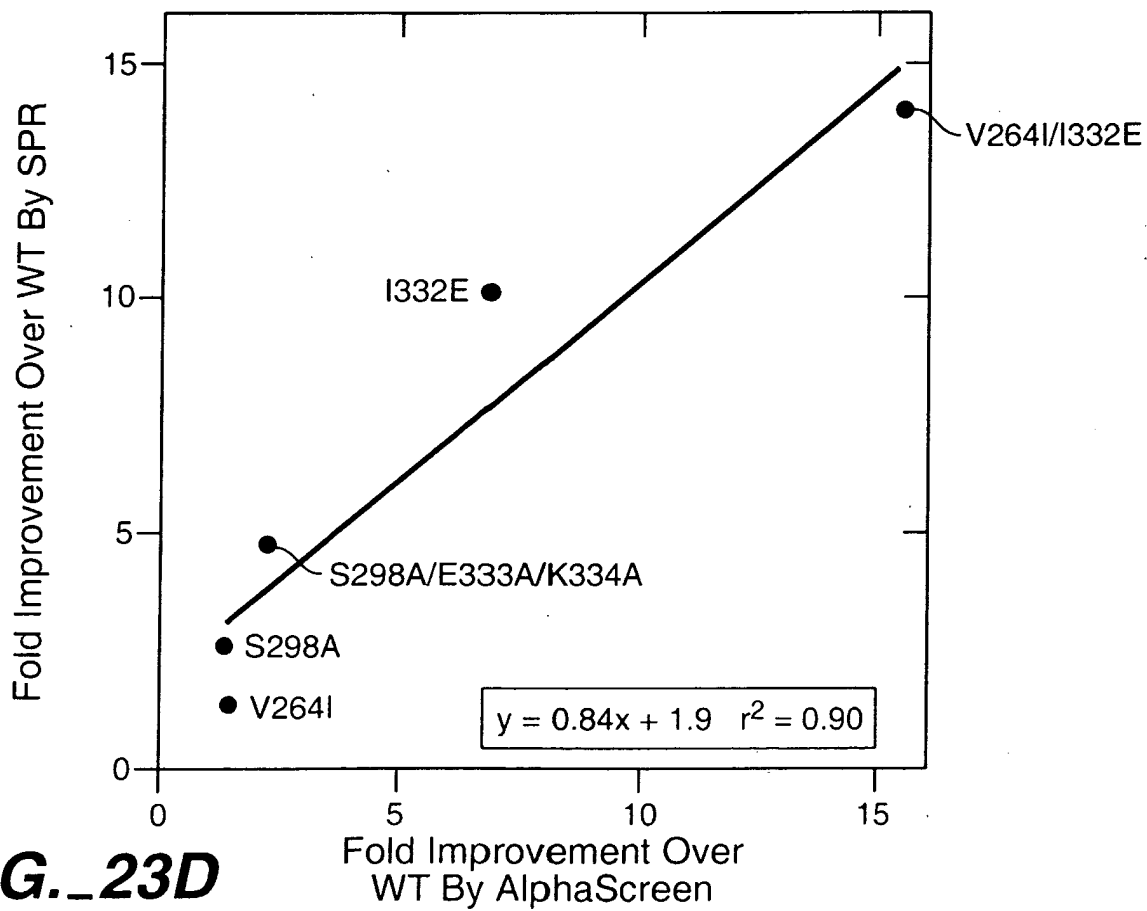


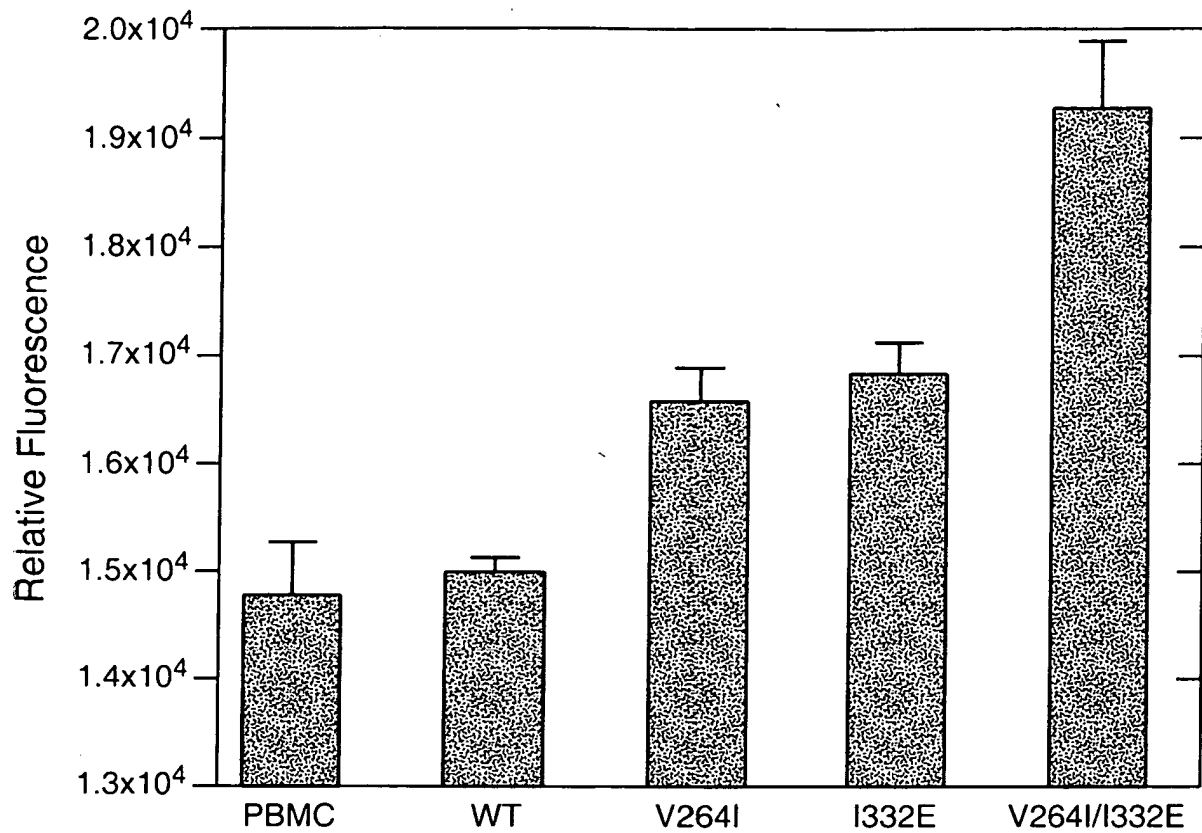
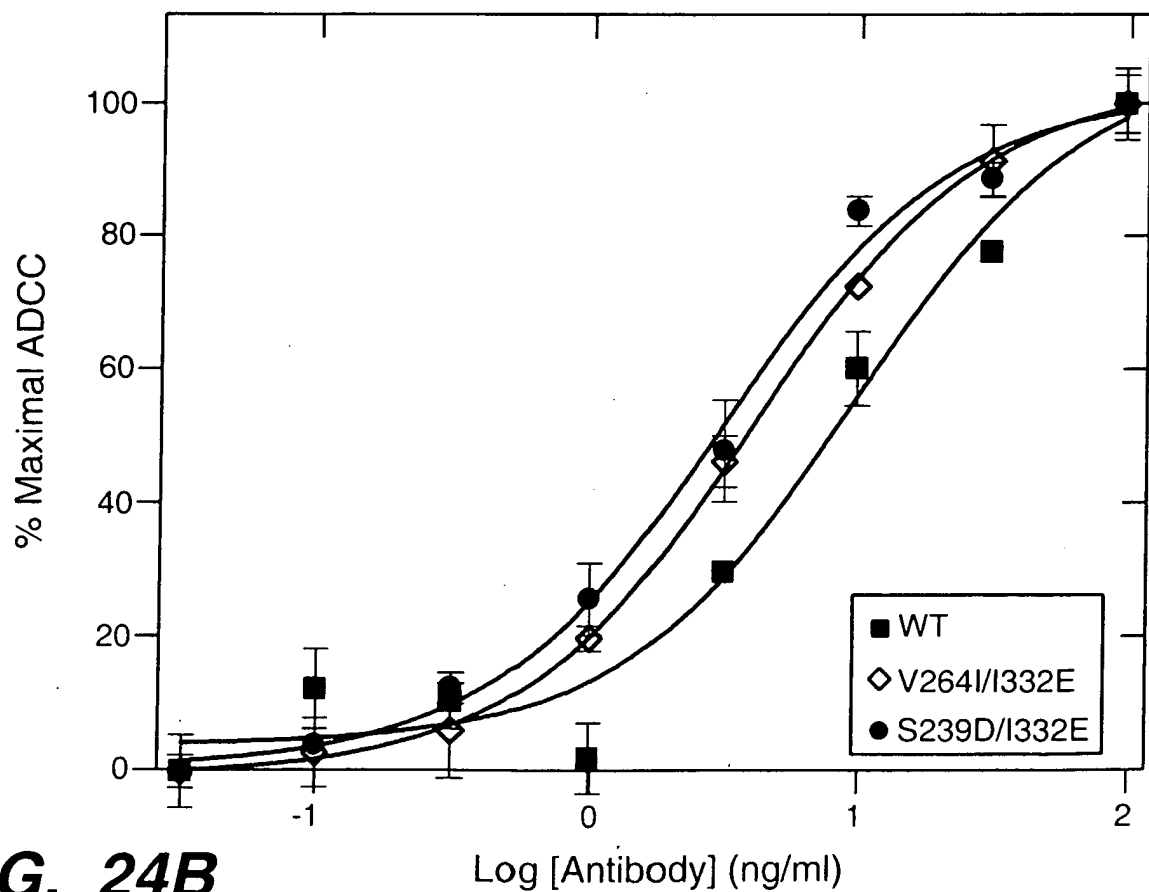


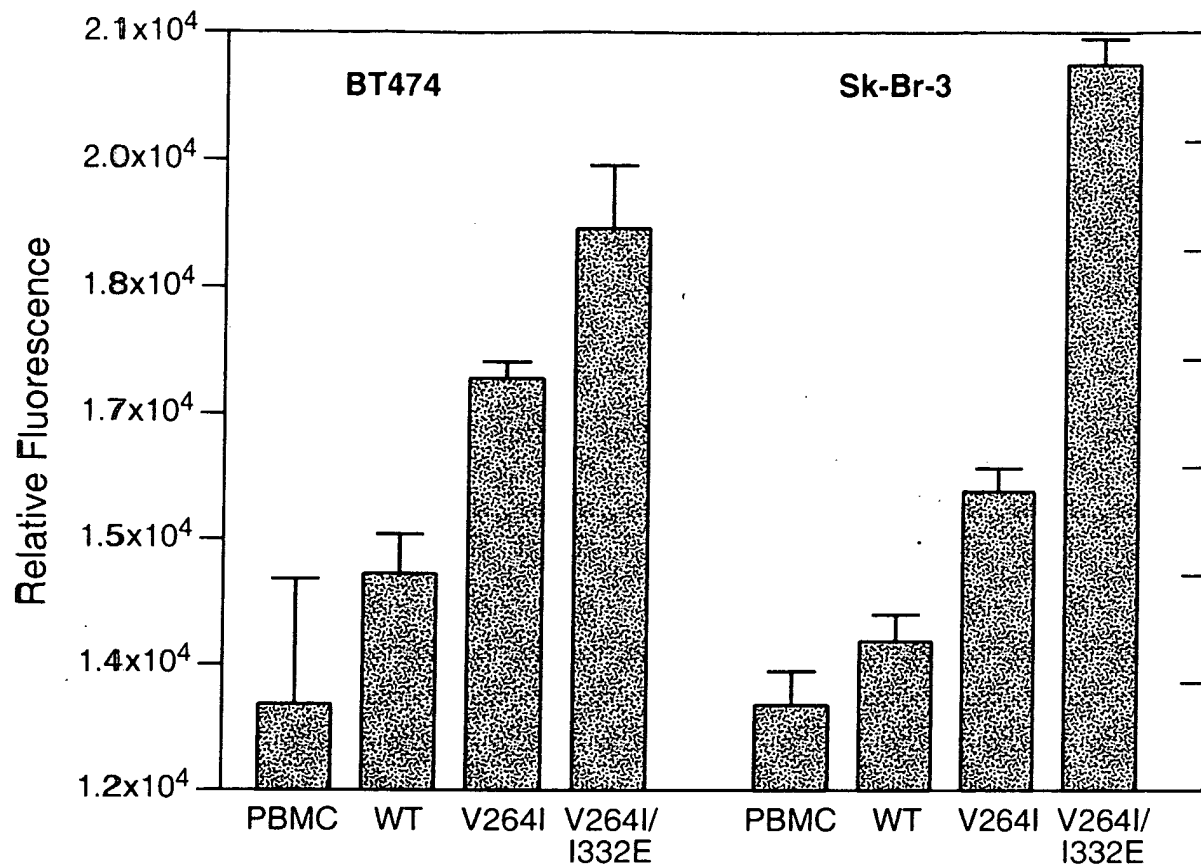
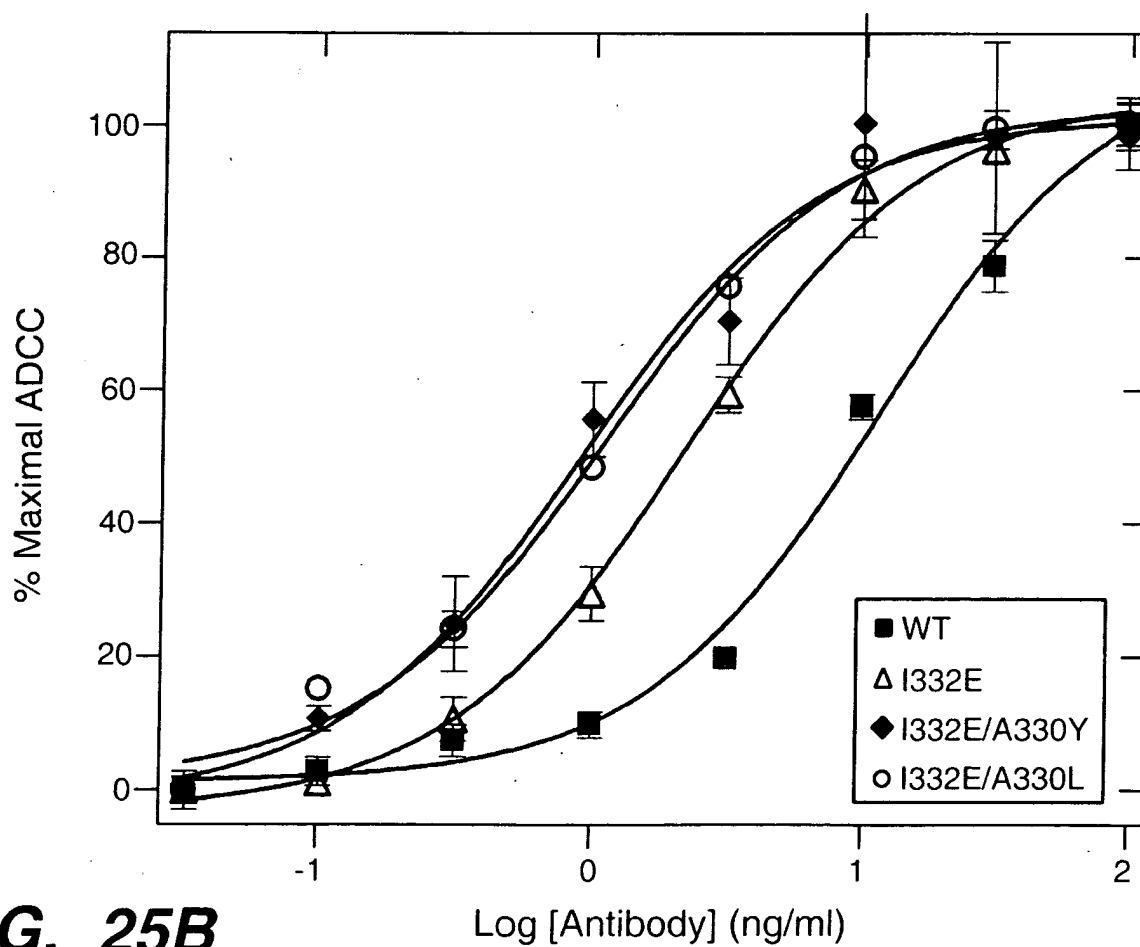


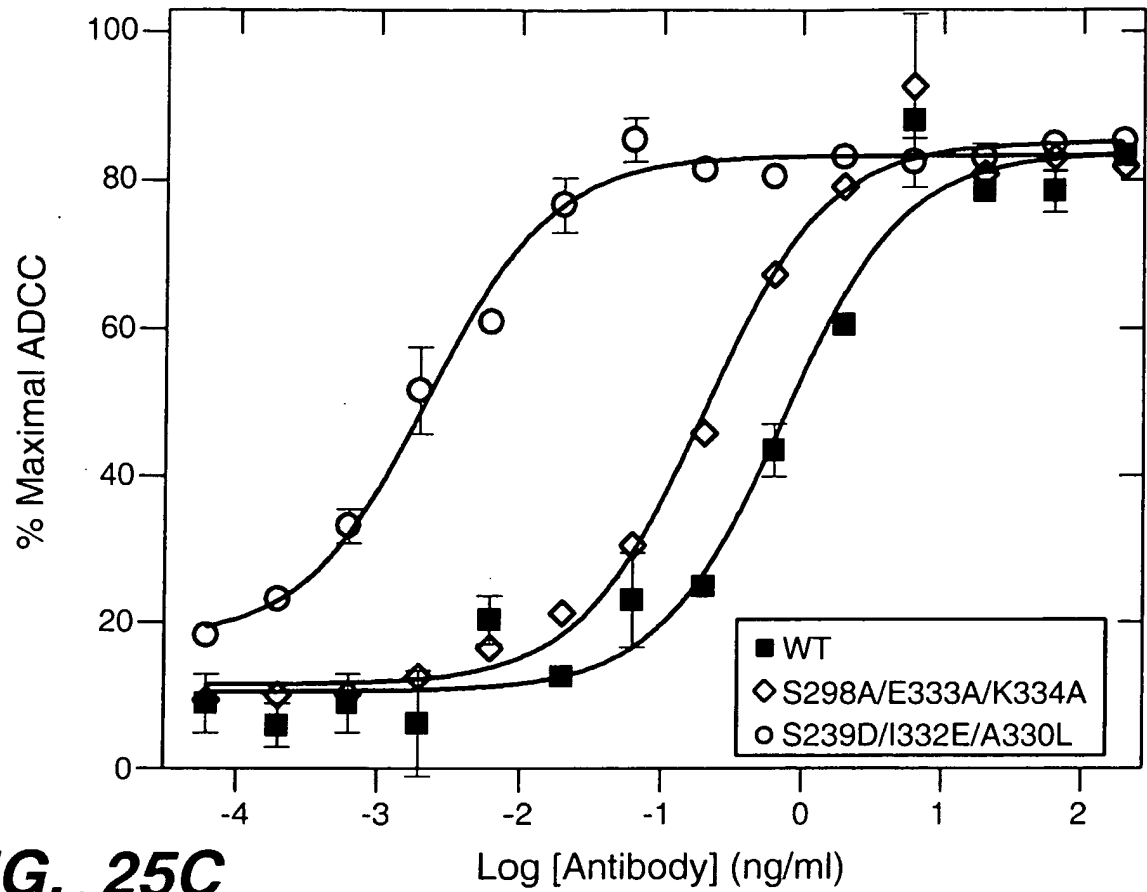
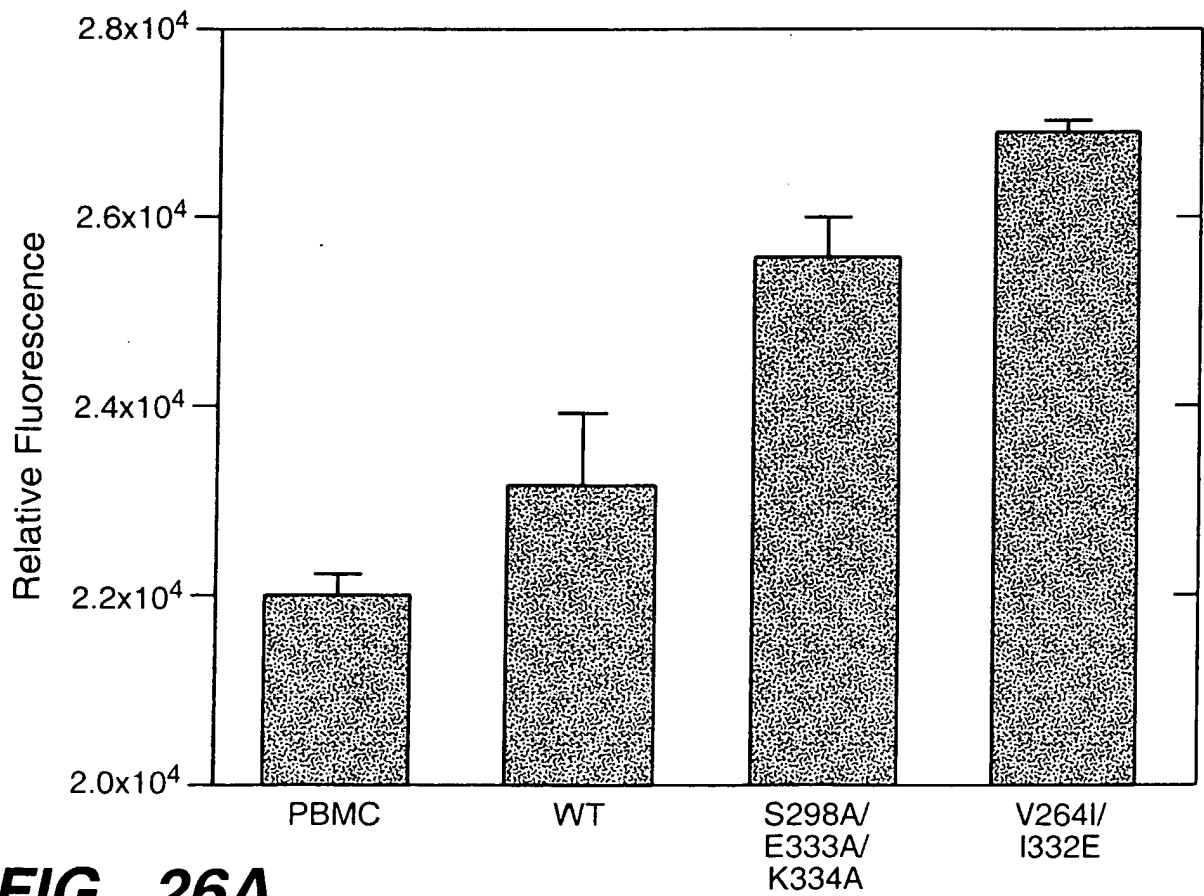
**FIG. 22A****FIG. 22B**

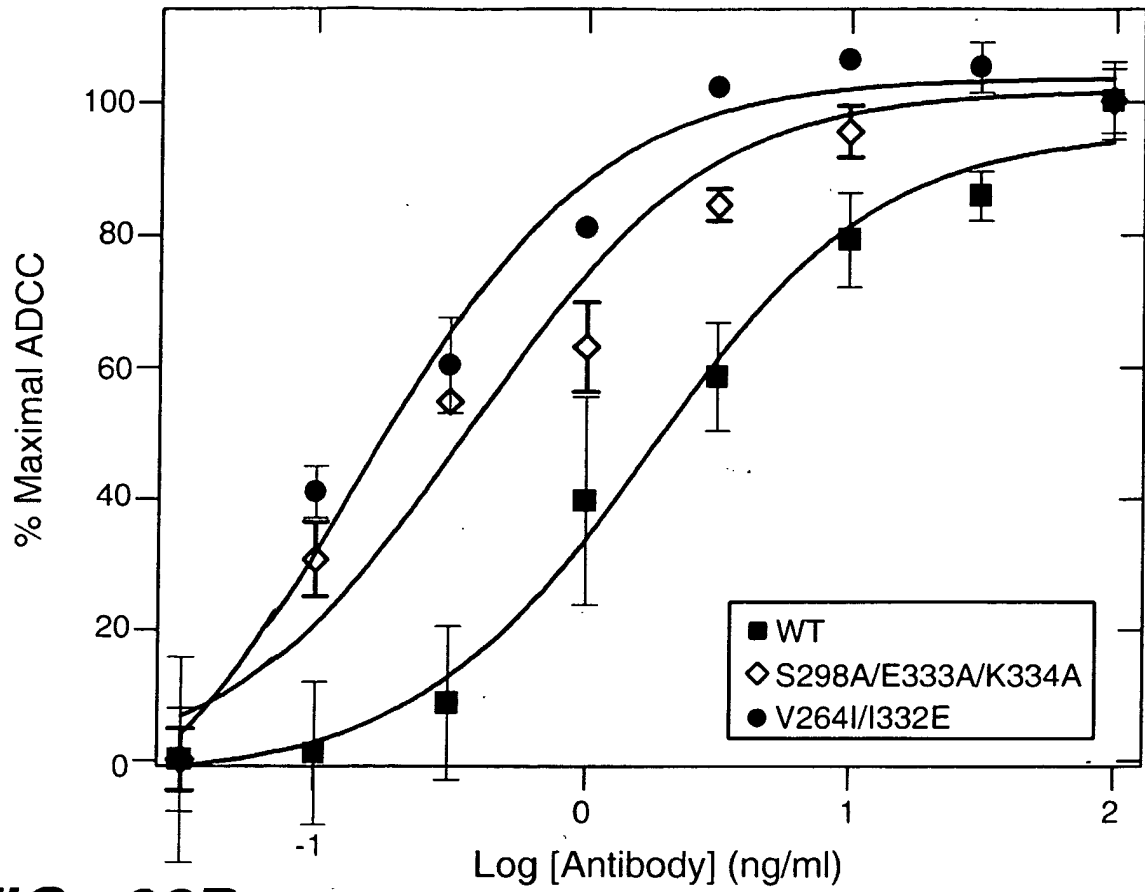
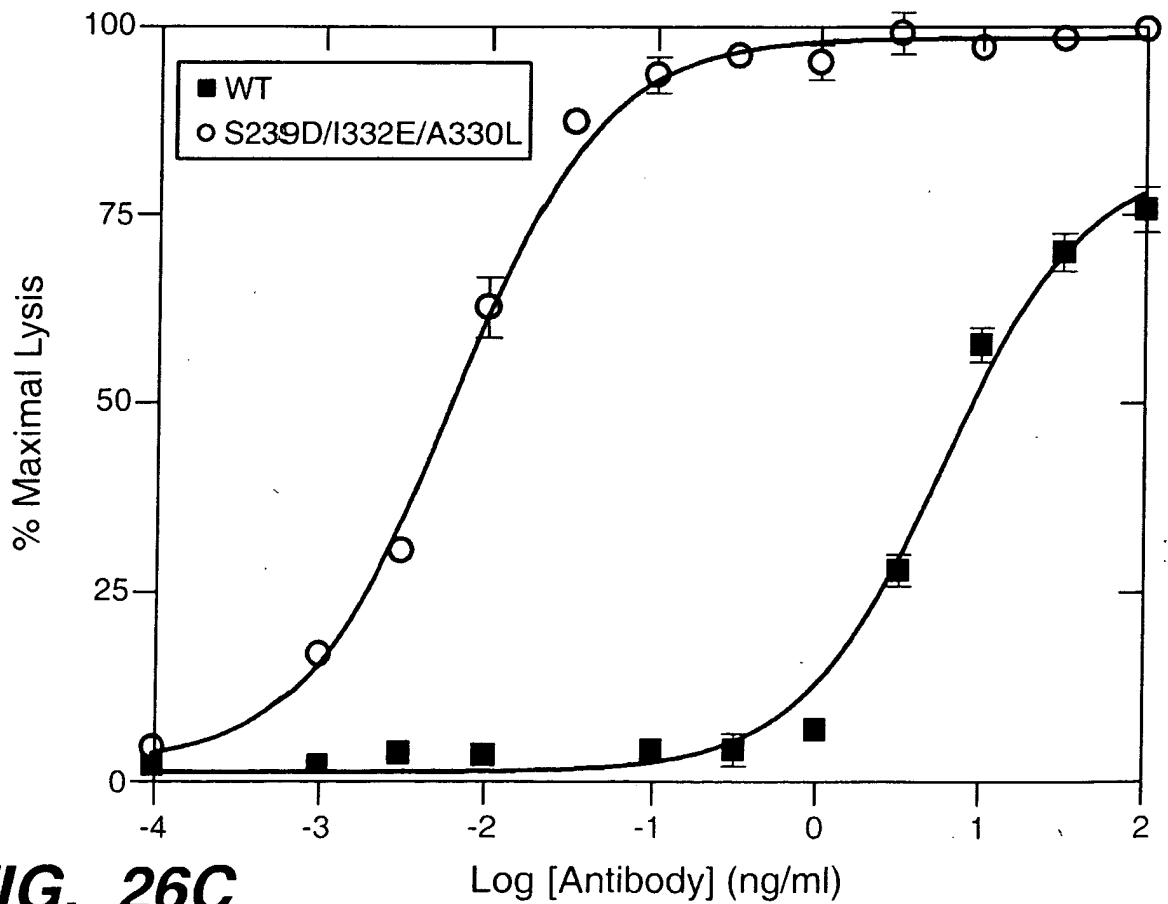
**FIG._23A****FIG._23B**

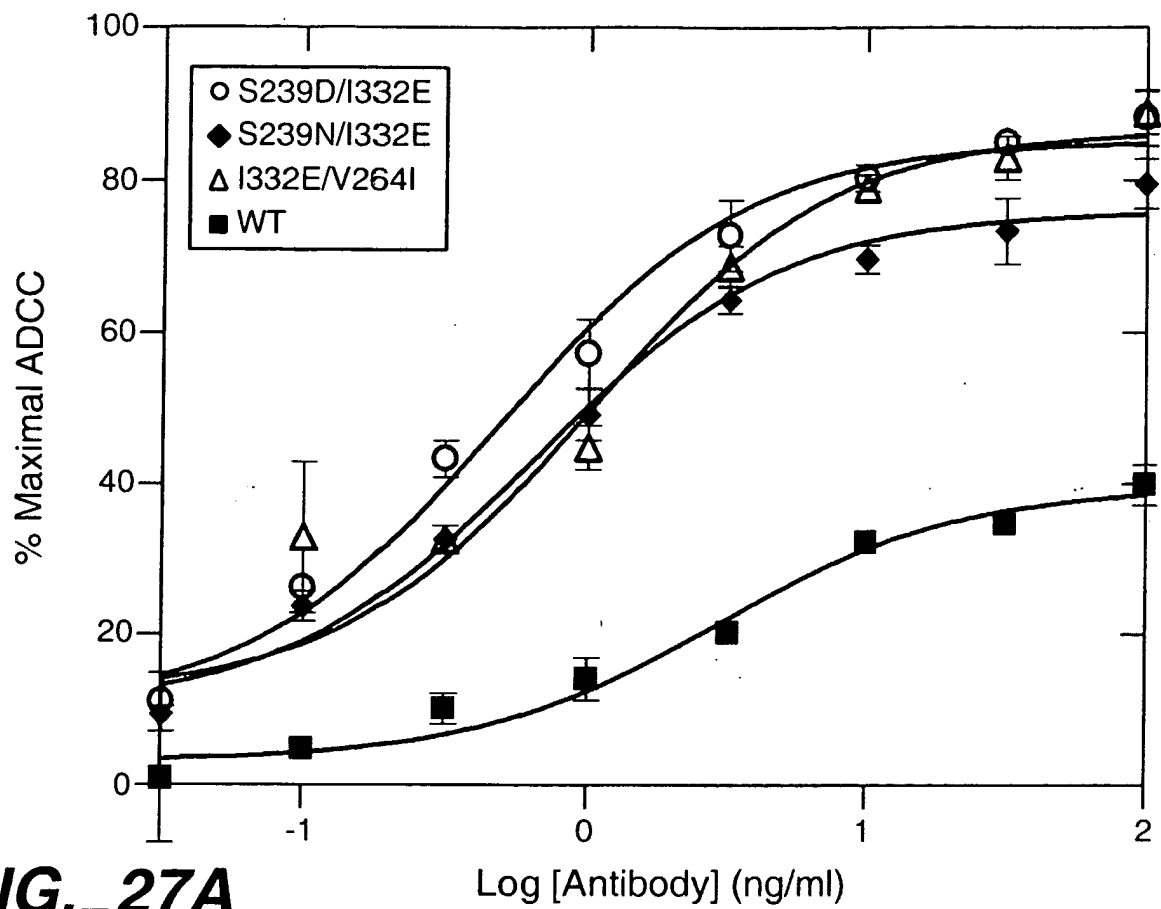
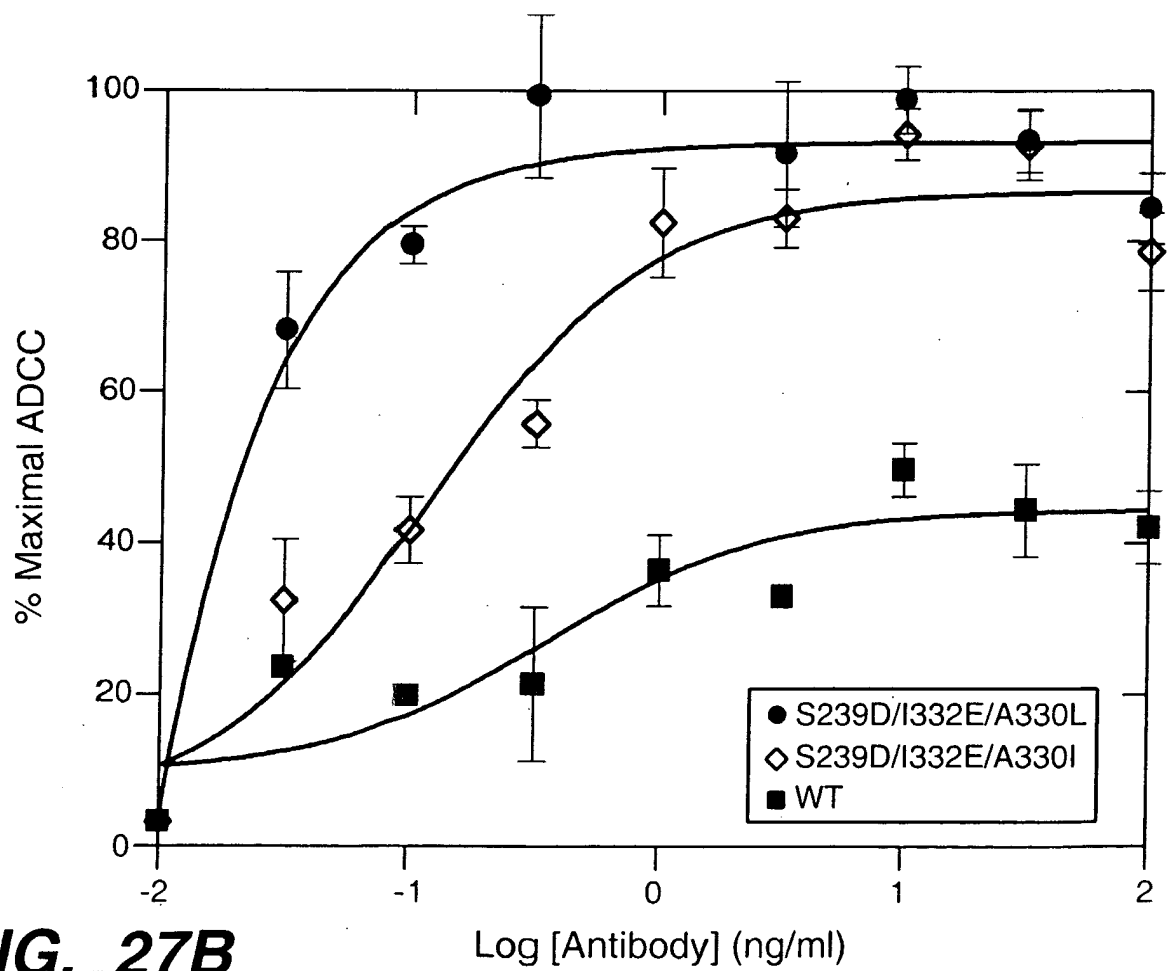
**FIG._23C****FIG._23D**

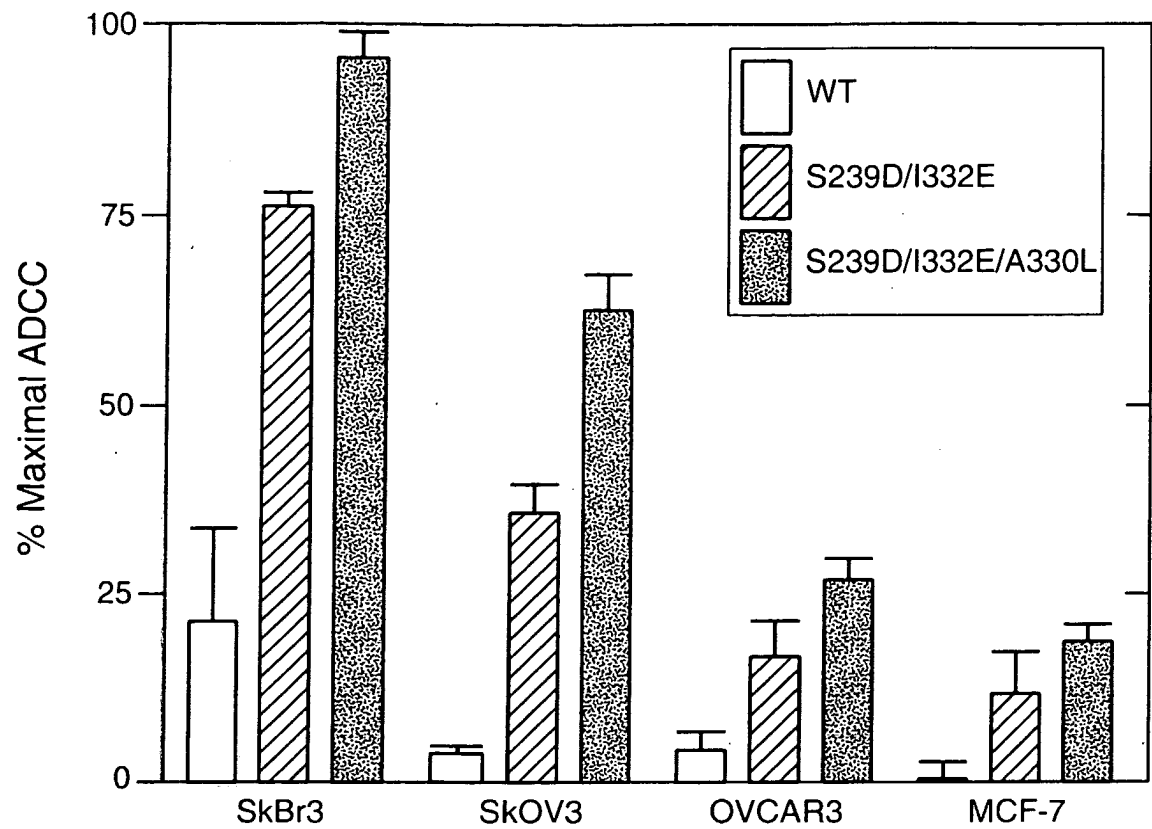
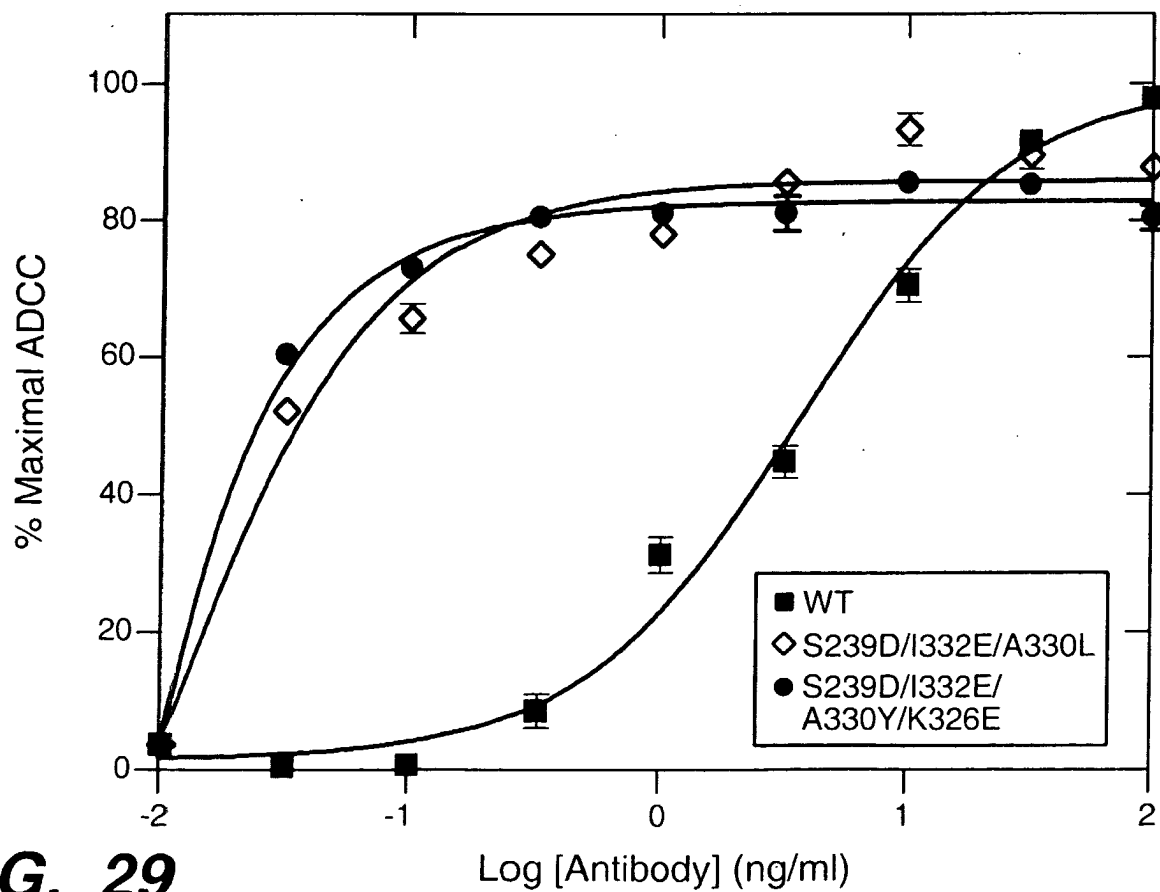
**FIG. 24A****FIG. 24B**

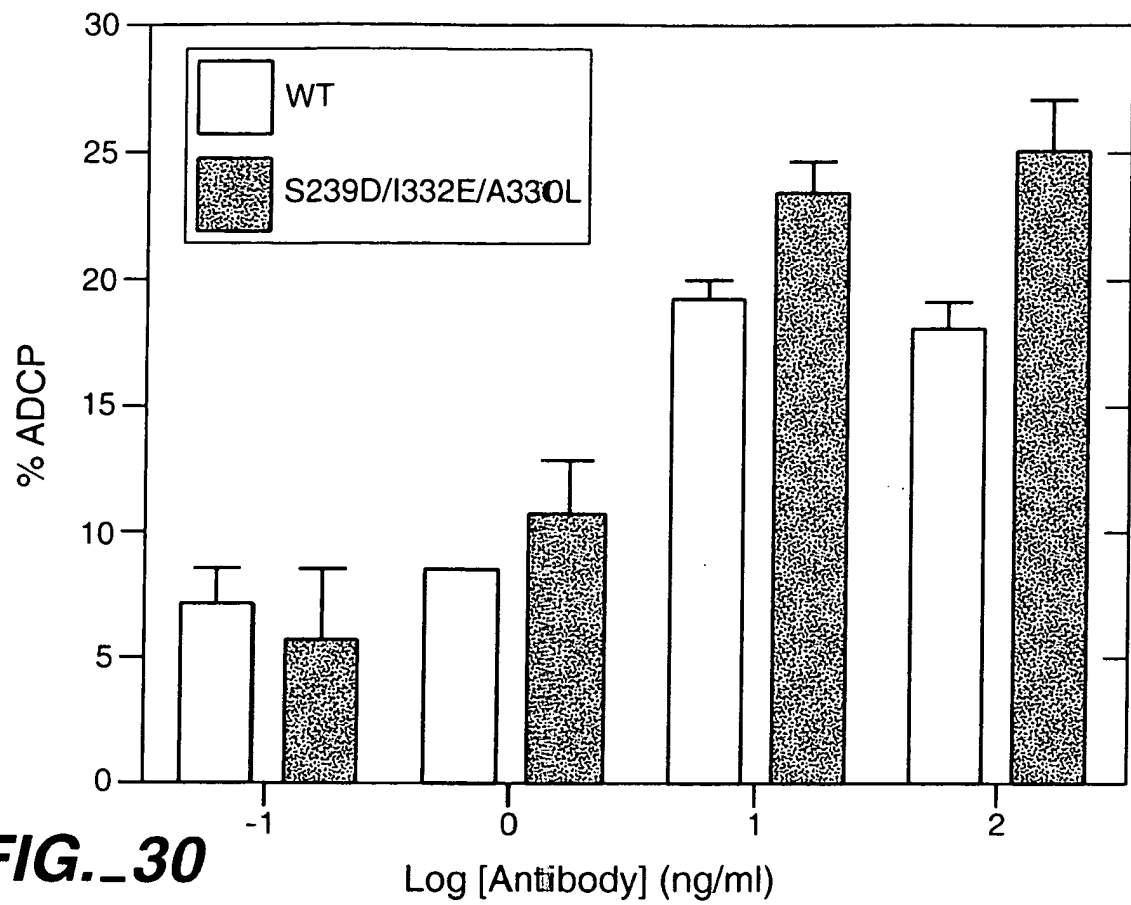
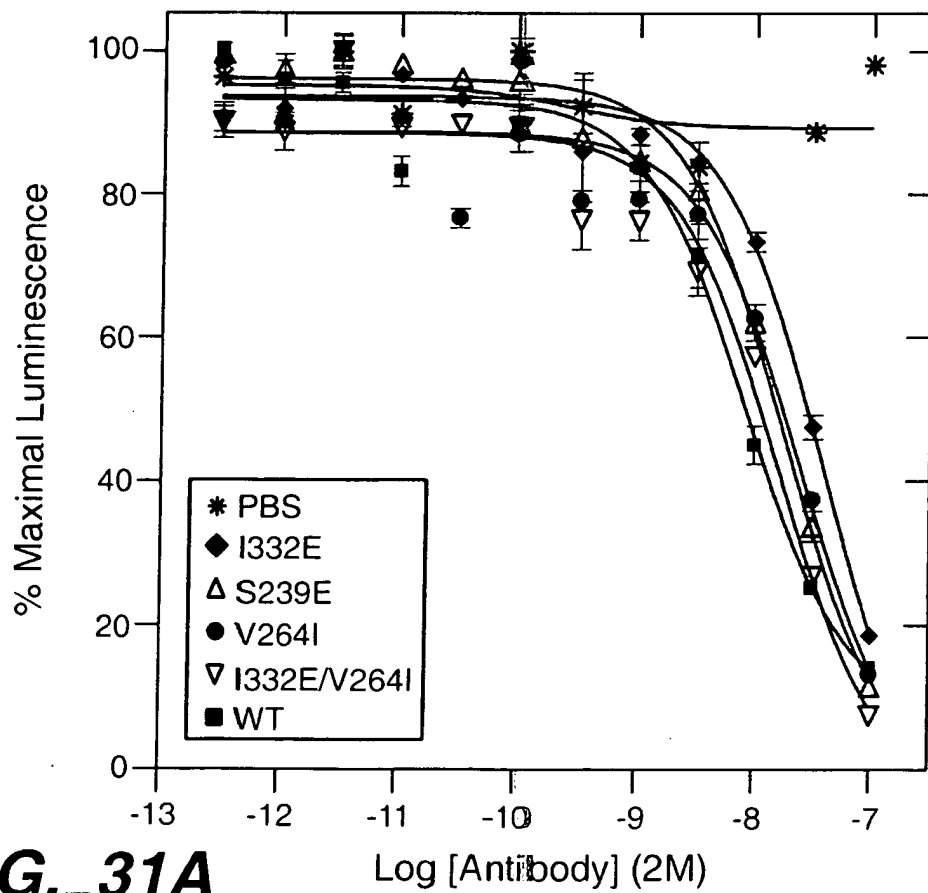
**FIG._25A****FIG._25B**

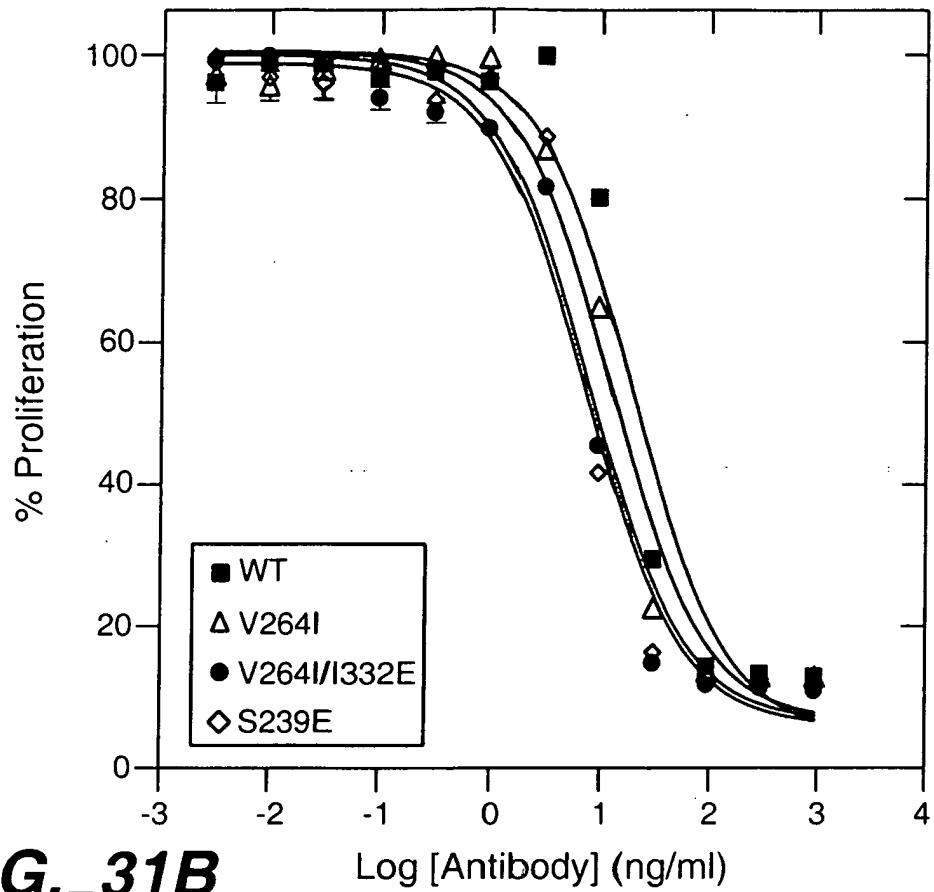
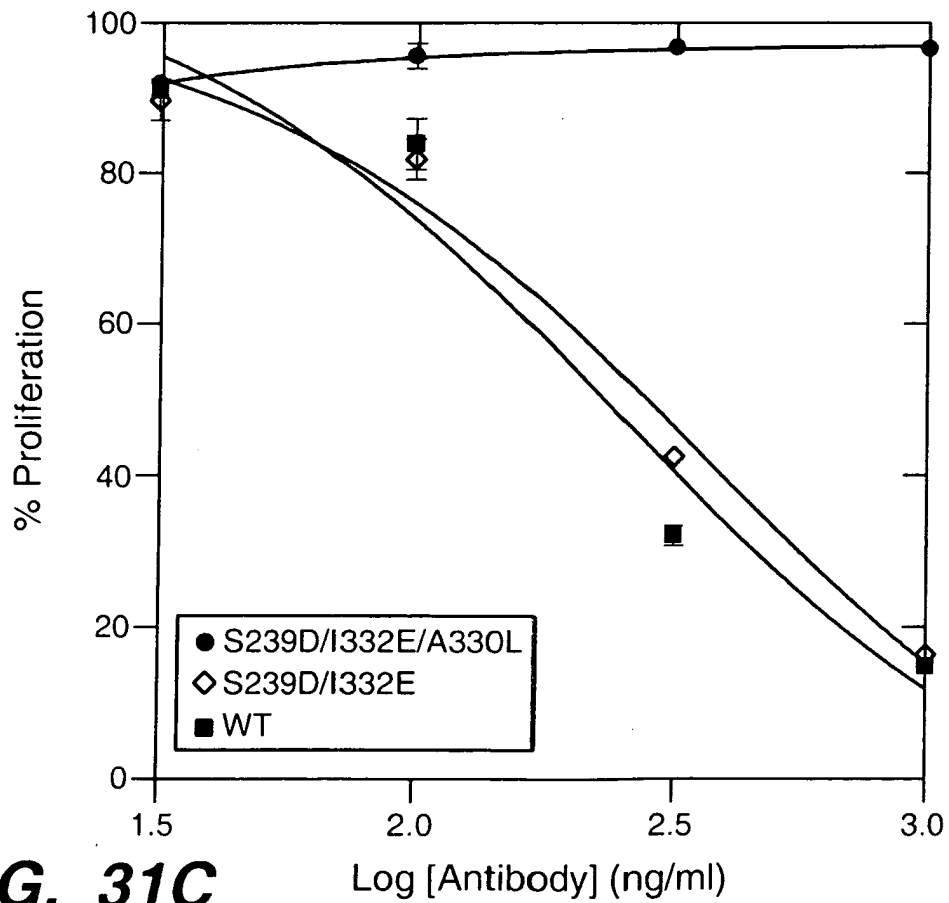
**FIG._25C****FIG._26A**

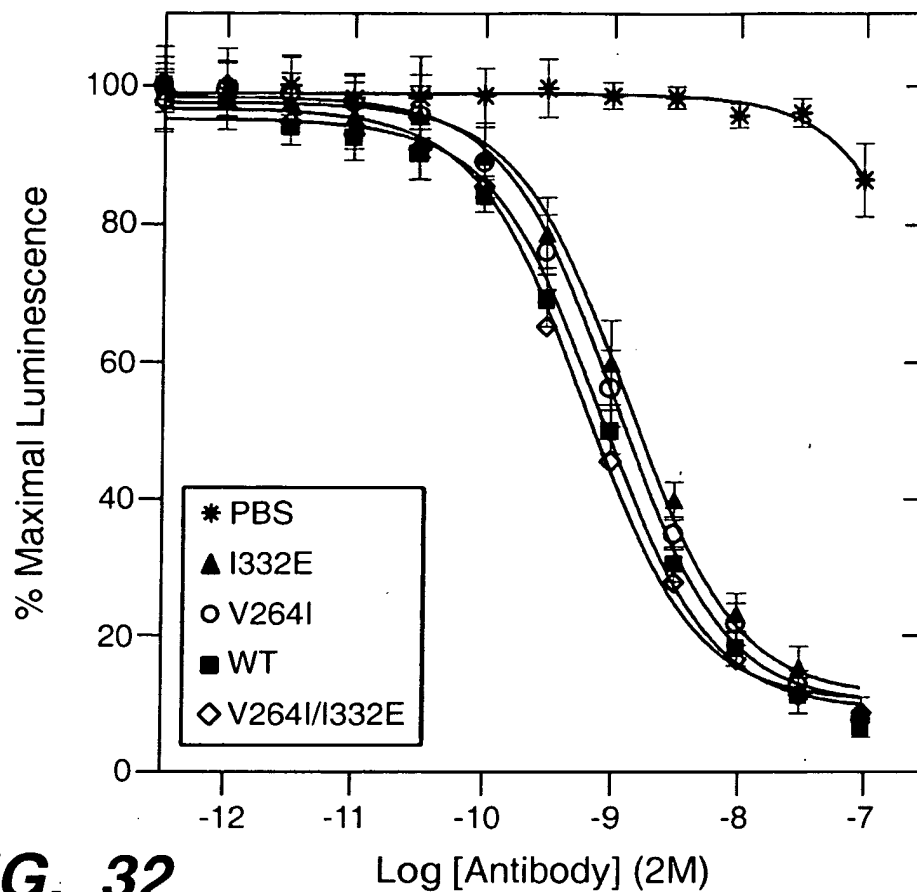
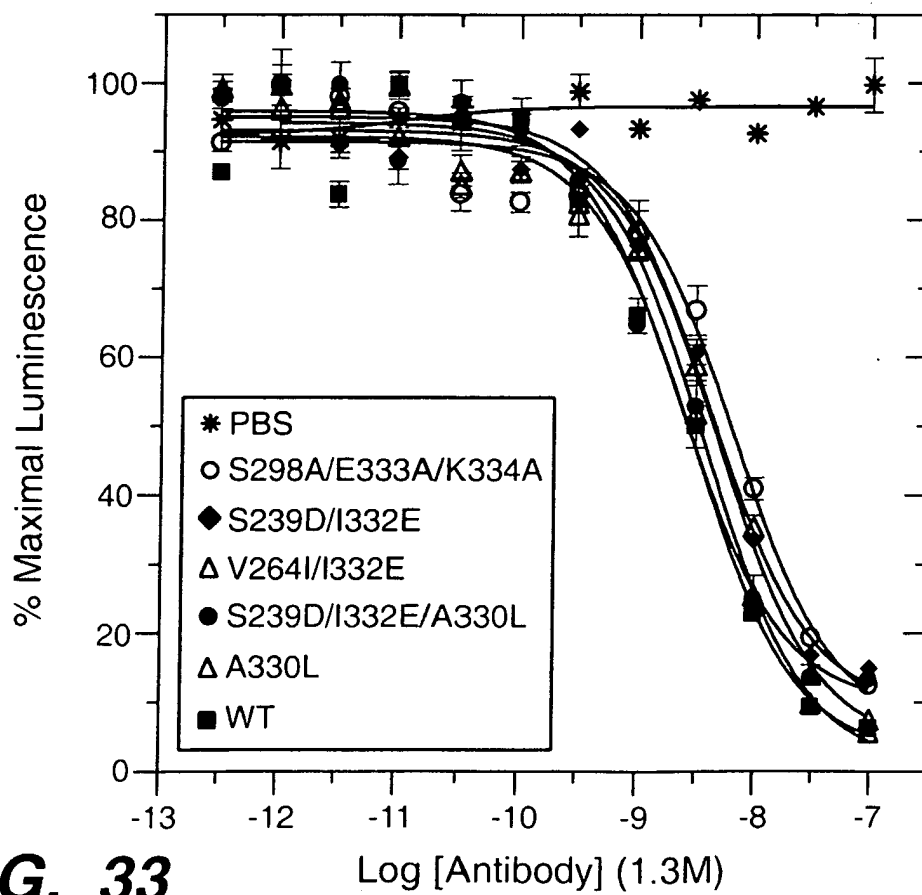
**FIG._26B****FIG._26C**

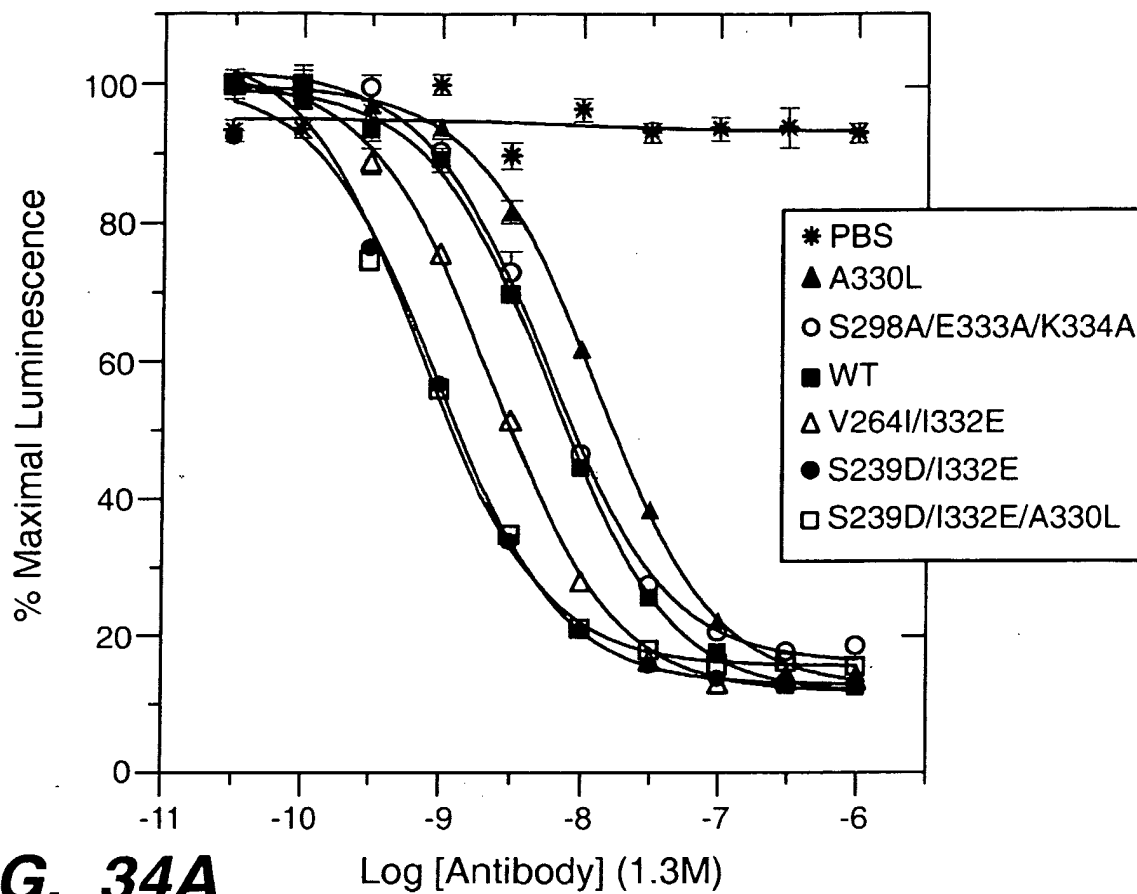
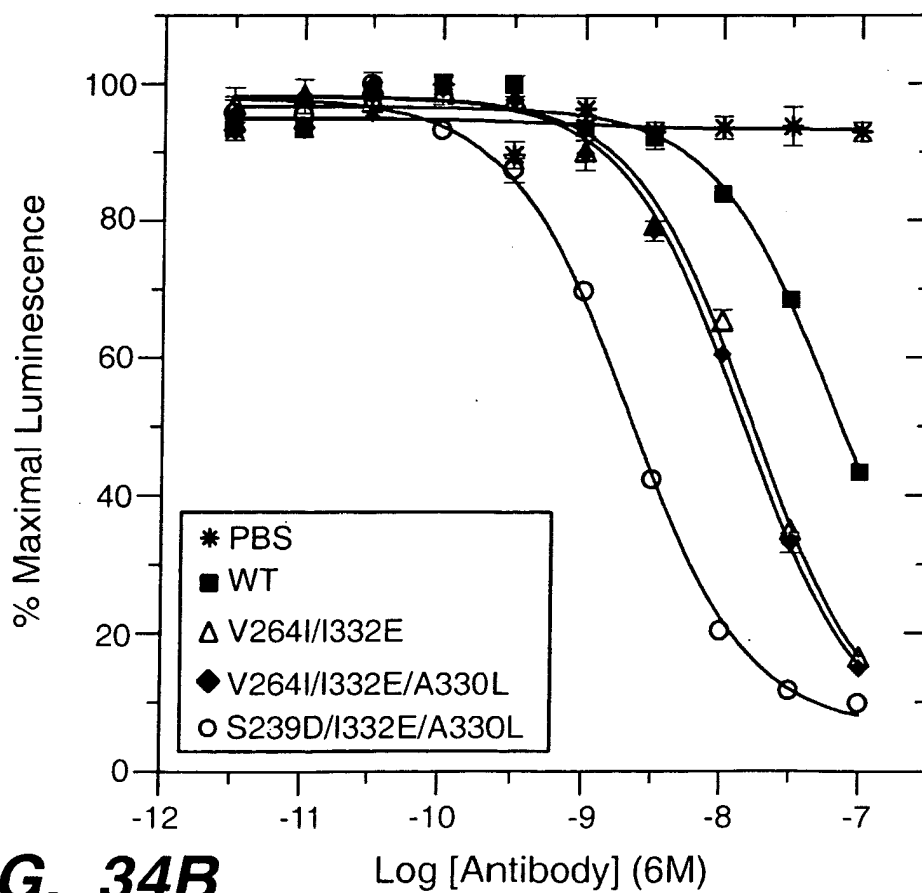
**FIG. 27A****FIG. 27B**

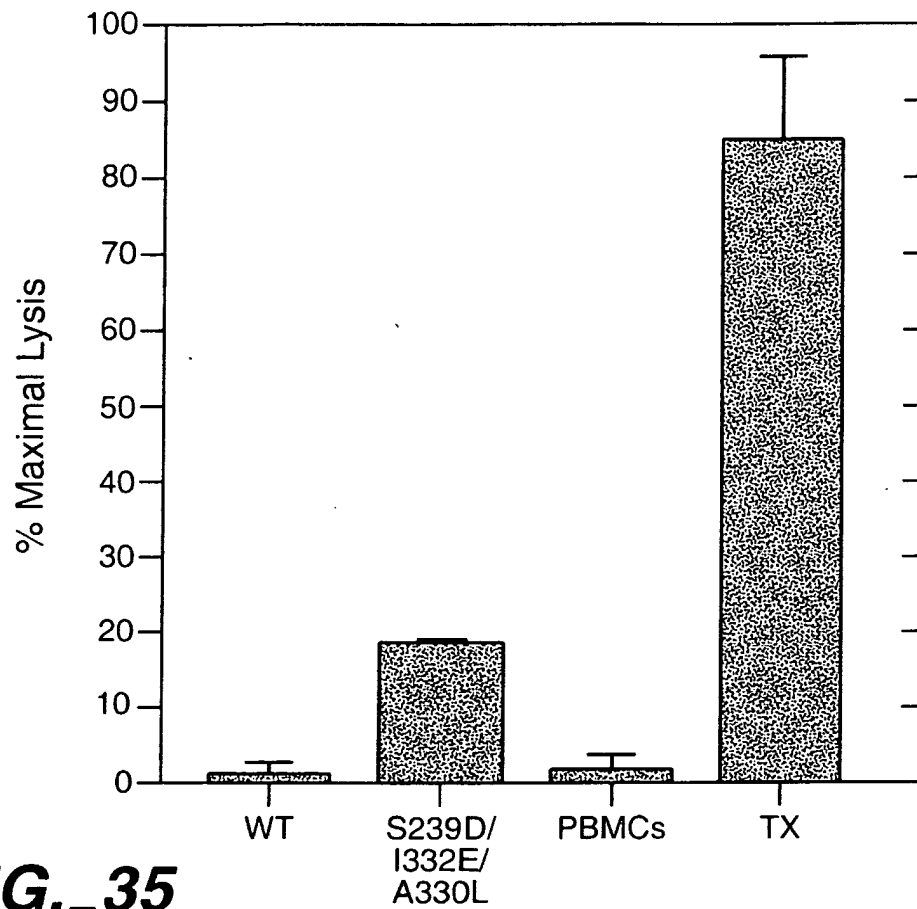
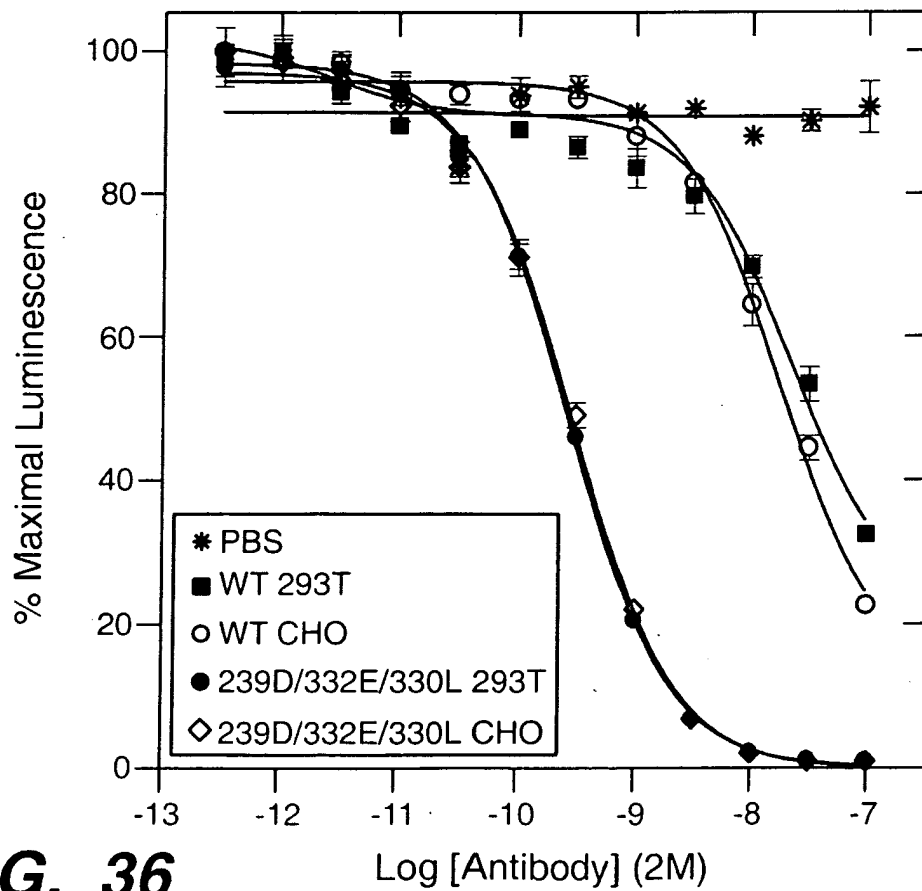
**FIG._28****FIG._29**

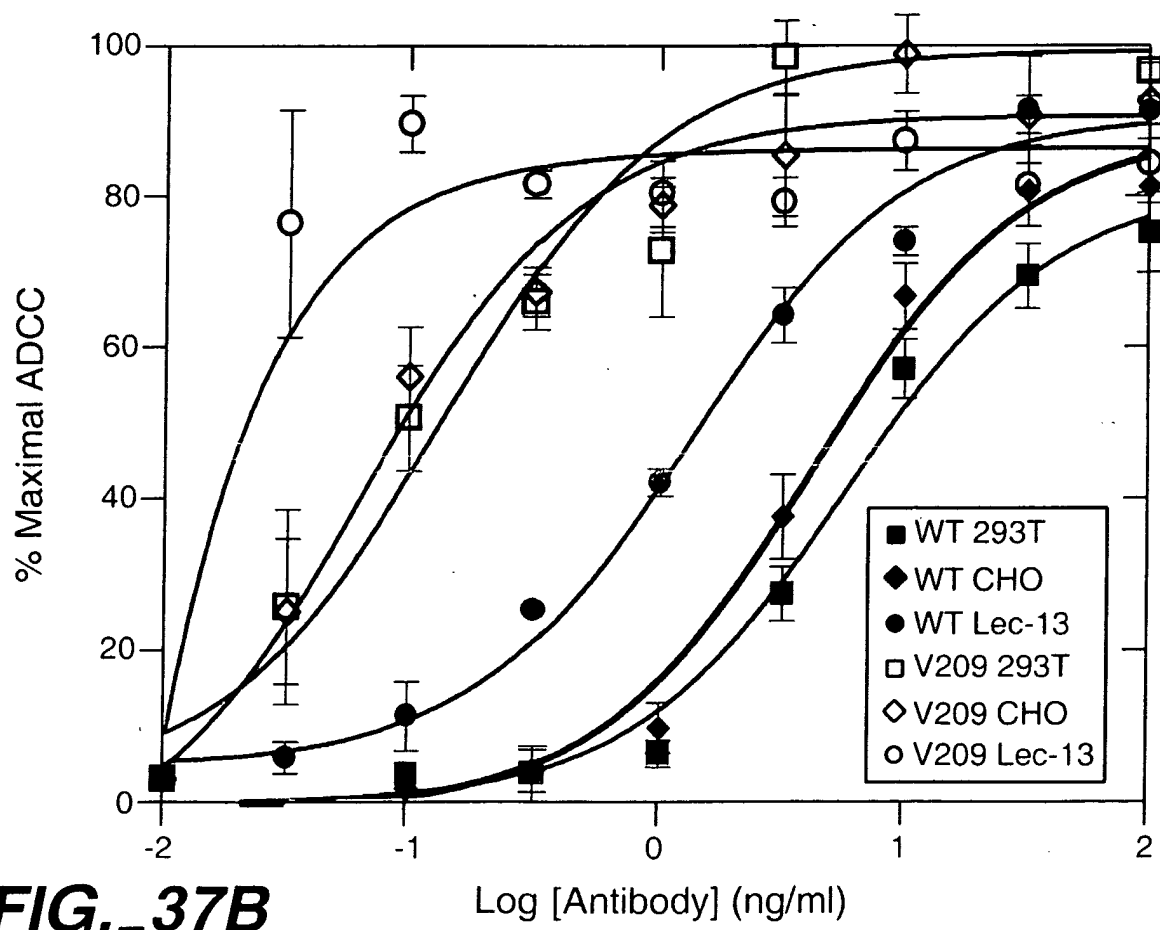
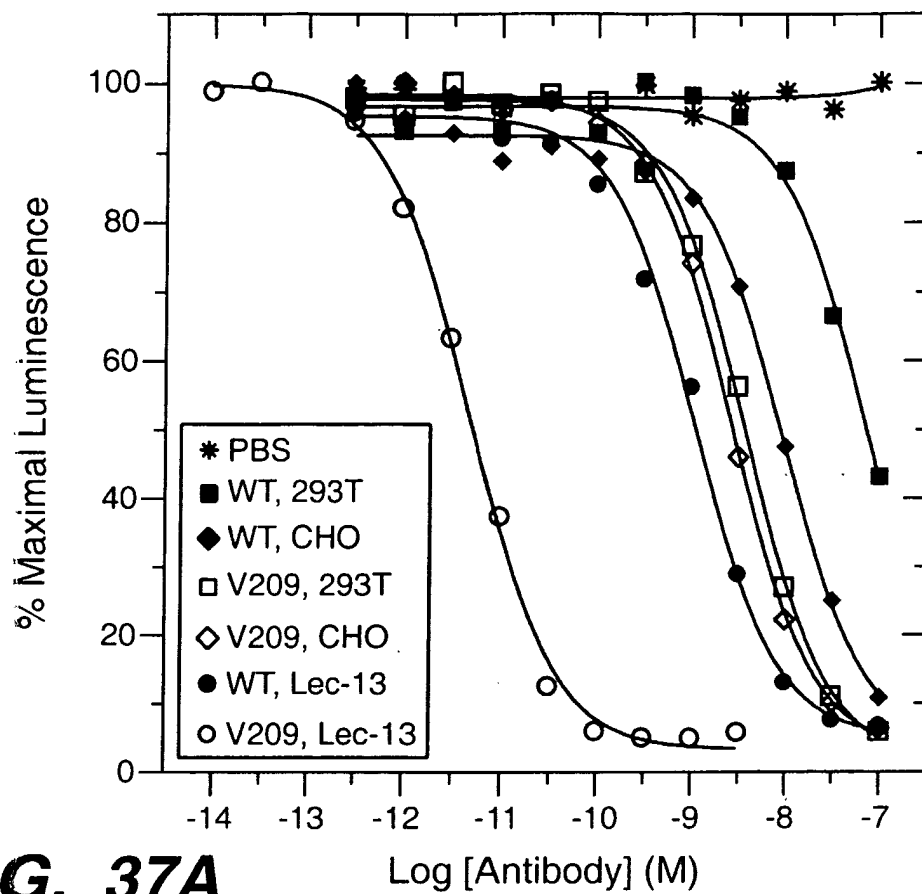
**FIG._30****FIG._31A**

**FIG. 31B****FIG. 31C**

**FIG._32****FIG._33**

**FIG. 34A****FIG. 34B**

**FIG._35****FIG._36**



SEQ ID NO: 3

Anti-CD20 Light Chain

QIVLSQSPAILSASPGEKVTMTCRASSSVSYIHWFQQKPGSSPKWIYATSNLASGVPVRFSGSGSG
 TSYSLTISRVEAEDAATYYCQQWTSNPPTFGGGTKLEIKRTVAAPSVFIFPPSDEQLKSGTASVVCL
 LNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDYSLSTLTLSKADYEKHKVYACEVTHQGLS
 SPVTKSFNRGEC

FIG._38A

SEQ ID NO: 4

Anti-CD20 Heavy Chain

QVQLQQPGAELVKPGASVKMSCKASGYTFTSYNMHWVKQTPGRGLEWIGAIYPGNGDTSYNQKFKGK
 ATLTADKSSSTAYMQLSSLTSEDSAVYYCARSTYYGGDWYFNVWGAGTTVTVSAASTKGPSVFPLAP
 SSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQT
 YICNVNHKPSNTKVDKKAEPKSCDKTHTCPPCPAPELLGGP**SV**FLFPKPCKDTLMISRTPEVTCVVV
 DVSHEDP**EV**KFNWYVDGVEVHNAKTKPREEQY**NS**TYRVVSVLTVLHQDWLNGKEYKCKVSN**KALPAP**
 IEKTI**SKAKGQ**PREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPV
 LDDSDGSFFLYSKLTVDKSRWQQGNVSCSVMHEALHNHYTQKSLSLSPGK

FIG._38B

SEQ ID NO: 5

Anti-CD20 Heavy Chain Comprising Possible Fc Variants

QVQLQQPGAELVKPGASVKMSCKASGYTFTSYNMHWVKQTPGRGLEWIGAIYPGNGDTSYNQKFKGK
 ATLTADKSSSTAYMQLSSLTSEDSAVYYCARSTYYGGDWYFNVWGAGTTVTVSAASTKGPSVFPLAP
 SSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQT
 YICNVNHKPSNTKVDKKAEPKSCDKTHTCPPCPAPELLGGP**X₁X₂**FLFPKPCKDTLMISRTPEVTCV
VX₃DVSHEDP**X₄VX₅**FNWYVDGVEVHNAKTKPREEQY**X₆Z₁**TYRVVSVLTVLHQDWLNGKEYKCKVSN
Z₂ALPX₇PX₈EKTI**SKAKGQ**PREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPEN
 NYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVSCSVMHEALHNHYTQKSLSLSPGK

Position	WT	Possible Substitutions
X ₁	S	D, E, N, Q, T
X ₂	V	I, M
X ₃	V	I, T, Y
X ₄	E	Y
X ₅	K	E
X ₆	N	D
X ₇	A	Y, L, I
X ₈	I	D, E, N, Q
Z ₁	S	A
Z ₂	K	E, T

FIG._38C

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